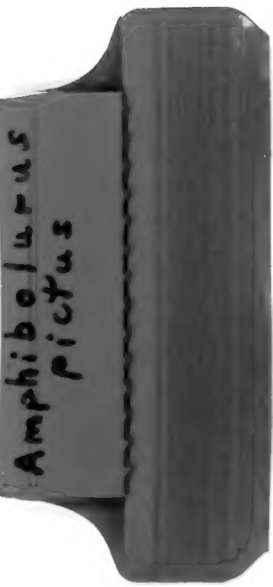


Bill Mayhew

MADE IN U.S.A.
GENUINE
Trussell
74 CL

Amphibolurus
pictus



Mayhew
1961

Amphibolurus pictus

1.

Sept. 18

UCR, Riverside Co., Calif.

Dick ~~Ted~~ford (Geology) has just returned from a summer in Australia. He brought me 2 adult ~~oro~~ in his pocket. They were collected in late August on Lower Cooper's Creek, 16 miles west of Etadunna Station (which is on the Birdsville Track) in South Australia. They were collected from sand ridges at an elevation of about 100 feet. This location is roughly 20 miles east of Lake Eyre. They dig shallow burrows in the sand at the bases of plants. He captured these by digging them out by hand. They have been placed in a cage with Uma.

Sept. 20

The smaller of the two holds its own with the Uma when it comes to getting food. He charges right in and grabs. The larger one, however, has refused to eat so far. These animals eat differently than our local lizards. They grab a meal worm & chew it a number of times before swallowing it. Local lizards, on the other hand, simply gobble the worm down in a couple of bites.

Sept. 25

Since the larger lizard has not been seen to eat since they arrived, I moved both of them into a 15 gallon terrarium

Mayhew
1961

Amphibolurus pictus

2.

Sept. 25

UCR, Riverside Co., Calif.
with 2 Sauromalus obesus young.
There should be no competition for food here.

Sept. 28

The smaller animal continues to eat well. It eats lettuce and the petals of African daisies as well as meal worms. The other animal hasn't been seen eating yet.

Oct. 3

The larger animal finally has been seen eating mealworms + some petals to African daisies. It has not grown a bit thin since it arrived, so perhaps it has been eating all along when no one was watching. All of the animals in this terrarium are getting along fine.

Oct. 13

These 2 animals, along with the 2 Sauromalus obesus + 1 Cellisaurus draconoides, were placed in cage #1 today when the Phrynosoma m'calli were placed in the cold room from that cage. This cage is 6' X 2' X 1'.

Oct. 14

The additional space in the new cage has apparently released an inhibition the smaller cage produced as far as territorial defense is concerned. The smaller animal (toe-clipped #1) is certainly dominating the larger animal (toe-clipped #2). #1 chases

Mayhew
1961

Amphibolurus pictus

3.

Oct. 14

UCR, Riverside Co., Calif.

#2 all over the cage at a terrific rate. In fact, #2 has charged into the glass walls so hard it has a bloody snout. It spends most of its time (when it isn't being chased) huddled at one end of the cage. #1, on the other hand, moves about from place to place, climbs on top of the rock pile in the cage, & bobs up and down frequently. Its bobbing motion is rather different from that of local lizards. Instead of bobbing rapidly up & down, as our lizards do, it tends to thrust its head up once by pushing with its forelegs. This will be repeated at fairly short intervals, but it doesn't seem to do the rapid push-ups of our lizards. Both animals change color quite rapidly, ranging from a dull black-red to a light rufous on the back. The dark stripe down the middle of the back is obvious under any color change, however. They can produce a very noticeable crest along the back and on the top of the head. This may extend as much as 3-5 mm. above the rest of the back. Most of the time, however, the crest

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1961

Amphibolurus pictus

4.

Oct. 14

UCR, Riverside Co., Calif.

cannot be seen. In spite of one being completely dominated by the other, both of them are eating well and look in fine shape.

Oct. 18

#2 seems to be developing the eye disease we have been fighting this summer & fall. Therefore, I have dosed its eyes with aureomycin and placed it by itself in a small terrarium. I can't predict what will happen to it when it is returned to the large cage once again (providing its eyes heal properly). I'm not sure it can eat with its mouth in its present condition (bruised and bloody).

Oct. 19

#2 ate the mealworms it was offered this morning, so apparently its mouth isn't damaged too much. Its eyes seem to be much better.

Oct. 23

#2 was returned to the large cage today, #1 apparently left it pretty much alone, since I didn't hear them banging against the glass as one chased the other.

Oct. 24

#1 has started to dominate #2 again. #2 just hugs the sand in one corner of the cage while #1 wanders all over. It spends considerable time on top of

7

8

9

Mayhew
1961

Amphibolurus pictus

5.

Oct. 24

UCR, Riverside Co., Calif.

the larger of 2 rock piles in the cage, periodically bobbing up & down. #2's nose is bloody again from banging so hard into the glass walls of the cage.

Oct. 25

#2 was removed from the large cage this morning & returned to the small terrarium. Both of these animals eat mealworms consistently now. They also really go for lettuce leaves. They seem to prefer leaves that have been broken up into smaller pieces.

Oct. 26

#1 and #2 were exchanged today — that is, #1 was placed in the small terrarium & #2 was placed in the big cage. They will remain in these cages until Monday (4 days) then #1 will be returned to the large cage also. I want to see if #2 will become the dominant or by having the large cage to itself for this period.

Oct. 30

#1 was returned to the large cage today. #2 has spent a great part of the last 4 days (at least the part I have been in the office) under the largest rock pile in the cage. It was under the rock pile when #1 was returned to the cage, although a small container of water was in the small terrarium with #1, he

0

6

7

Mayhew
1961

Amphibolurus pictus

6.

Oct. 30

UCR, Riverside Co., Calif.

was never seen drinking from it. as soon as he was returned to the large cage, however, he was seen to drink from the water dish for several seconds.

Within two hours of his return to the large cage, #1 was chasing #2 all over the cage again. #2 had re-bloodied its nose by the activity. #1 would raise the crest on its back & head, and chase #2 back & forth in the cage. Once #1 was seen to approach #2 with its mouth widely opened. #2 made no effort to fight back. #1 was replaced in the small terrarium for a few more days. He was quite light in color when I caught him, & replaced him in the small terrarium, but he darkened very rapidly after being released.

Nov. 6

#1 was returned to the large cage this morning. although #2 was well hidden beneath the large rock pile in the cage at the time of #1's re-entry, within an hour #1 was chasing #2 around the cage, & #2's snout was bloody again. Therefore, I removed #2, and placed it in the small cage (terrarium). #2 has been extremely wild

Mayhew
1961

Amphibolurus pictus

7.

Nov. 6

UCR, Riverside Co., Calif.

all week. Whenever anyone has walked past the cage he has run back & forth the entire length of the cage, trying to escape. He was always quite docile previous to this time.

Nov. 20

#2 went blind a couple of days ago, so I preserved it while it was still in good shape. #1 is still hale and hearty.

Dec. 14

I placed a young Dipsosaurus dorsalis from the 11-hour light cage (#13) into the cage with #1 and the 2 young Sauromalus obesus. #1 pays little or no attention to either of the Sauromalus at any time. Within a minute after I dropped the Dipsosaurus in the cage, however, #1 switched its tail back & forth (sidewise) a couple of times, then ran directly to the Dipsosaurus. #1 grabbed it by the back of the neck for a moment, then let go. I had the impression it wanted to mate, but didn't get the proper response from the Dipso. #1 then walked to the end of the cage and tried to get through the glass as it does so often. The Dipso. remained in the same spot for several minutes.

Mayhew
1962

Amphibolurus pictus

8.

Feb. 5 UCR, Riverside Co., Calif.

This lizard ran to the water dish as soon as I filled it this morning. It stood there over a minute, drinking deeply at intervals. It drank for over 15 seconds at a time, then backed up a bit and opened & closed its mouth several times. Then the entire process was repeated. This occurred 4 times before it left the water and returned to the rock pile. It certainly drinks more than any of the Uta, and about as much as Dipsosaurus. The sauromalus in the same cage drink far less than it does.

Mar. 6

This lizard eats considerably less than it has. One mealworm is all it will take at a time, and often it ignores all of the worms that are offered. It is approaching fall in its natural habitat, and this may be involved. It still drinks water as eagerly as ever, though.

June 6

This animal is still getting along very well. Even though this is winter in its native habitat, it is just as active as ever. Its appetite remains good. It ate relatively little for about a month, but it has been eating several

Mayhew
1962

Amphibolurus pictus

9.

June 6

UCR, Riverside Co., Calif.

mealworms every day or two since that phase passed. I am going to record its cloacal temperature periodically to see how its temp. compares with local desert reptiles. The cage permits a considerable temp. selection, due to the positions of the 2 heat lamps. Temperatures will be measured with a Schulteis thermometer.

June 7

<u>Date</u>	<u>Time</u>	<u>Temp (°C)</u>	<u>Remarks</u>
6/6	1550	40.2°	Ran length of cage 4 times
6/7	0740	38.6	0' chase
	1215	39.5	Ran 1 length of cage
	1415	40.4	" 1 1/2 " " "

at 1520 a Dipsosaurus dorsalis (#35) was taken from the 11 hour Dipsosaurus cage and placed in the cage with this animal. The measurements (S-V length) & weight of these animals at the last weigh-in were:

Amphibolurus — 70 mm., 16.3 gms.

Dipsosaurus — 80 mm., 16.0 gms.

Periodic temps. (cloacal) of these animals will be taken to compare their temp. preferences.

<u>Amphibolurus</u>			<u>Dipsosaurus</u>	
<u>Time</u>	<u>Temp. (°C)</u>	<u>Chase (ft.)</u>	<u>Temp. (°C)</u>	<u>Chase (ft.)</u>
1600	40.2	8		
1605			41.0	12

Mayhew
1962

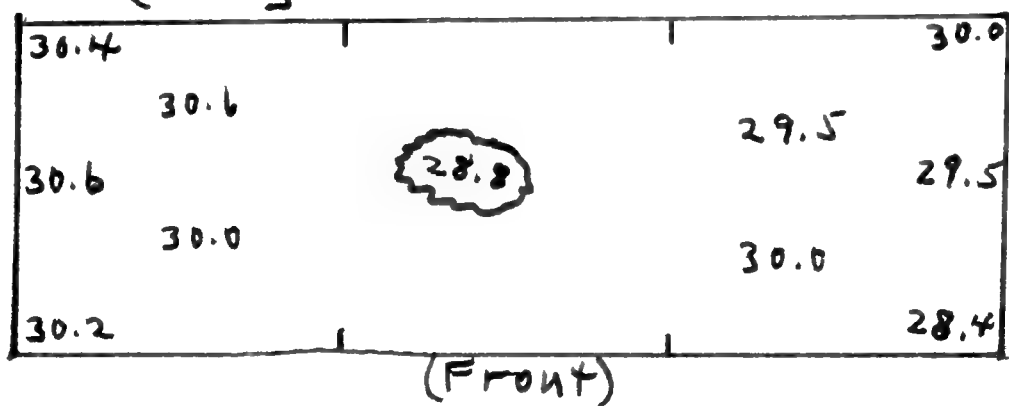
Amphibolurus pictus

10.

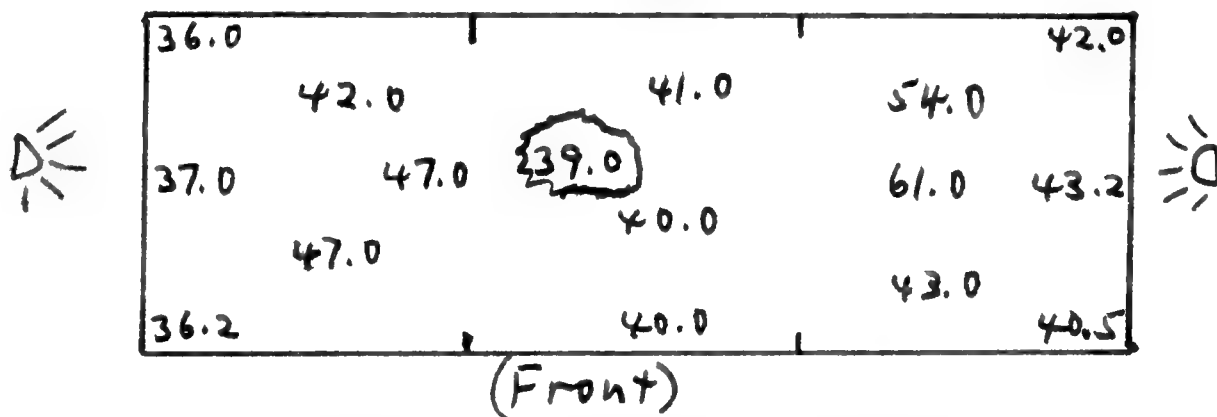
June 7

UCR, Riverside Co., Calif.

The soil surface temperatures in the cage (6' x 2') are as follows:
0700 (No lights for approx. 13 hours)



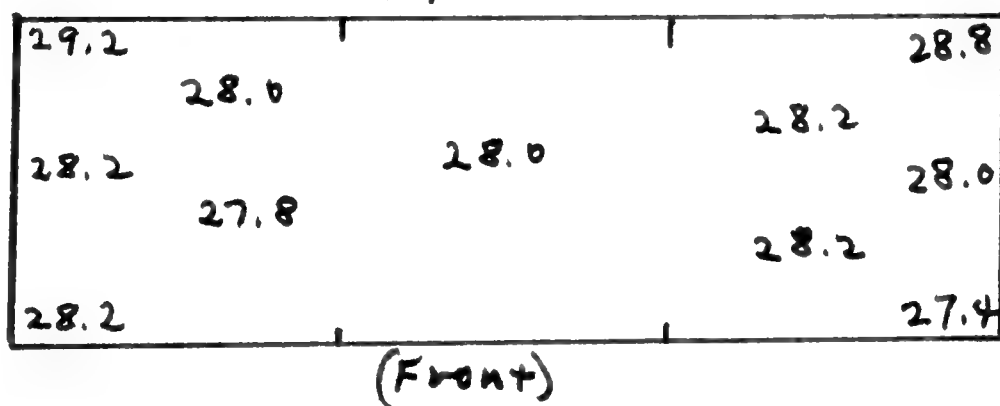
1600 (Lights for approx. 9 hours)



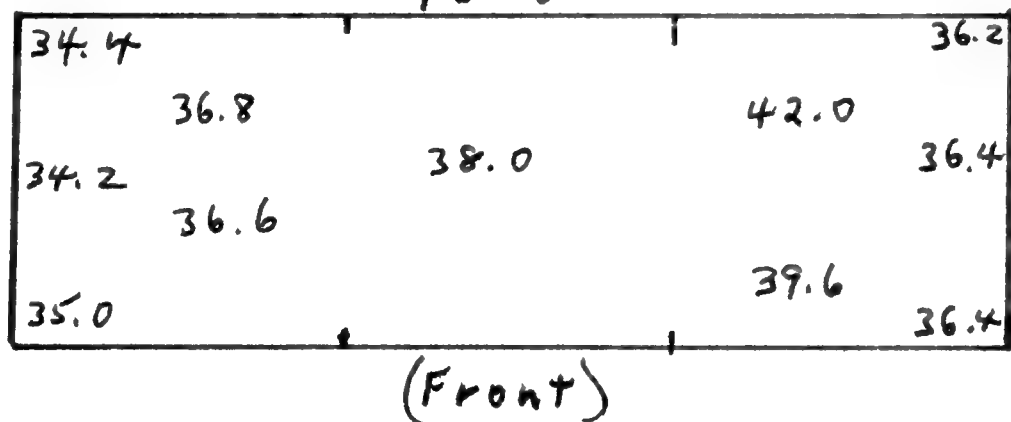
☉ = cavity beneath rock.

air temp. at 1 centimeter above the soil surface were as follows:

0700



1600



Mayhew
1962

Amphibolurus pictus

11.

June 8

UCR, Riverside Co., Calif.

<u>Time</u>	<u>Amphibolurus</u>		<u>Dipsosaurus</u>	
	<u>Temp.(°C)</u>	<u>Chase (ft.)</u>	<u>Temp.(°C)</u>	<u>Chase (ft.)</u>
(no lights) 0740	28.6	0	29.6	0
1220	39.0	8	39.4	1
1350	40.0	1	40.0	1
June 15 1115	38.2	0	40.0	0
1615	36.8	0	39.5	0
(under rock)				
1616	36.6	18		

July 9

The lizard was seen to eat only yellow Gazania petals this morning, although orange petals were in a dish right beside the yellow petals. Sauromalus ate both, but not this animal.

July 12

The lizard was seen to eat only orange Gazania petals today when it had a choice of orange or white petals.

This afternoon the lizard was offered four types of petals at the same time: yellow Hypericum sp., yellow Gazania, orange Gazania, & white Gazania. They were arranged as follows:



(H) (O) (Y) (W)

The lizard went immediately to (Y) and ate several petals. Then it went

Mayhew
1962

Amphibolurus pictus

12.

July 12

UCR, Riverside Co., Calif.

over to (H) and ate several more petals. It paid no attention whatever to (O) or (W).

July 13

When the lizard was offered the following choices: ((B) = ^{Saxonia} bronze-based petals with yellow tips)

(Y) (W) (H) (O) (B)

it ate only a few petals from (Y). However, the other 4 dishes were nearly empty by the time this lizard arrived. When the arrangement was: (B) (O) (Y) (H)
(W)

it ate (B), but from its previous position it could reach this dish first.

July 16

When offered the choice of mealworms in one dish and yellow Saxonia petals in the other, this lizard selected mealworms in both instances. The position of the dishes was reversed between tests. However, it ate only one mealworm each time. It has not been eating much lately, though, so I don't think the number of worms eaten is of any significance. It definitely selected the worms as a first choice.

(Veromessor pergandei)

Aug. 1

It ate some ants, with apparent relish when I placed half a dozen in the cage this morning. It moved

Mayhew
1962

Amphibolurus pictus

13.

Aug. 1

UCR, Riverside Co., Calif.

across the cage approximately 2 feet to grab one of the ants. The others that I saw the lizard eat were captured as they approached him.

Aug. 3

It ate two pale yellow alfalfa butterflies today (Colias eurytheme). Both of them fluttered around the cage for a considerable time without attracting any attention from this lizard. Eventually, however, each of them was eaten in turn with a great deal of chewing.

Today was the first time this animal has dug a burrow under one of the water dishes to my knowledge. It selected the dish at the hot end of the cage. It has constructed a neat little burrow with a single opening beneath one edge of the dish. It went into the opening head first. Then it would dig at the back of the burrow with its front feet & kick the dirt that was excavated out the opening with the hind feet. It uses one hind foot at a time, like a chicken. Probably the reason the lizard is digging where it is - is this is the only place in the cage where

Mayhew
1962

Amphibolurus pictus

14.

Aug. 3

UCK, Riverside Co., Calif.

the sand is packed enough to allow digging without collapse of the hole occurring.

Aug. 10

This animal readily some black harvester ants (Veromessor pergandii) that were placed in its cage. All that were put in the cage were eaten.

Nov. 13

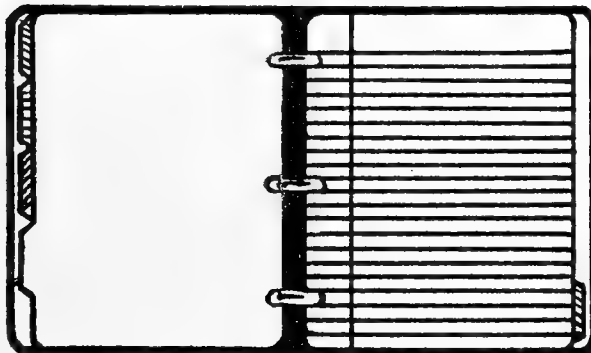
I measured the illumination available to this animal today with a Weston photometer. The light intensity in this cage ranged from 31 to 460 foot-candles.

Dec. 19

The right eye has been closed in this animal for a couple of weeks. Today it was treated with Achromycin (Tetracycline) in an attempt to cure it.

LOOSE LEAF INDEX

DURABLE INDEX
DIVIDERS, SUITA-
BLE FOR SCHOOL
OR COMMERCIAL
USE



IDEAL FOR CLAS-
SIFYING OR SEPA-
RATING STUDIES,
VARIOUS SUBJEC-
TS OR MISCELL-
ANEOUS DATA.

CLASS SCHEDULE

PERIOD TIME	FIRST	SECOND	THIRD	FOURTH	FIFTH	SIXTH	SEVENTH	EIGHTH
COURSE MONDAY								
INSTRUCTOR								
COURSE TUESDAY								
INSTRUCTOR								
COURSE WEDNESDAY								
INSTRUCTOR								
COURSE THURSDAY								
INSTRUCTOR								
COURSE FRIDAY								
INSTRUCTOR								
COURSE SATURDAY								
INSTRUCTOR								

NAME _____

SCHOOL _____ CLASS _____

HOME ADDRESS _____

CITY _____ TELEPHONE _____

*Callisaurus
draconoides*

Mayhew
1957

Callisaurus draconoides

1.

Mar. 30

Salton Sea, Imperial Co., Calif.

A number of these were caught on the east side of the sea, about 16 miles south of Mecca, Riverside Co., Calif.

Mar. 31

Several of these were seen and a few captured on the west side of Salton Sea between the Julian Road & San Felipe Creek.

1958

Aug. 24

Ocotillo Wells, San Diego Co., Calif.

A large number of young were seen on the road this morning. As many as 6 could be seen at one time in front of us. We saw them when we began driving at 0630, and some of them were still on the road when we left at about 1100. In the afternoon we saw an adult run across the road when the air temp. was 107°F ., the road temp. was 53°C . (127°F .), and the soil surface temp. was 59°C . (138°F .).

Sept. 18

Stoddard Valley, San Bernardino Co., Calif.

Summer rains have produced a colorful carpet of annual flowers that are now in bloom. Several specimens were caught here today.

Newberry Dunes, San Bernardino Co., Calif.

Several specimens were seen here this afternoon, but all of them were too wary for us to succeed in catching any.

Mayhew
1958

Callisaurus draconoides 2.

Sept. 19 11 mi. E. of Glamis, Imperial Co., Calif.

Some specimens were captured in a dry wash this afternoon. The area on each side of the wash is quite barren.

Sept. 20 3 mi. S. of Ocotillo Wells, San Diego Co., Calif.

Numerous juvenals were seen until 0915, when we left for breakfast. By this time juvenals of this species were the only reptiles still active as far as we could see. At this time the air temp. was 36.7°C ., the soil surface temp. was 48.2°C .

Oct. 17 1 mi. N. of Newberry, San Bernardino Co., Calif.

Relatively few animals were seen here today, but we captured one of them.

1959

Jan. 25 5 mi. N.W. of 1000 Palms, Riverside Co., Calif.

This afternoon a young animal was captured that was surprisingly small for this time of year (33 mm., S-V length). It must have hatched very late last year. It was on a dry hillside with a considerable amount of dead annual vegetation around. It was at an altitude of 1550 feet near the top of the Indio Hills just N.E. of Granddaddy Dune.

Jan. 30 Kelso Dunes, 10 mi. S.W. of Kelso, San Bernardino Co., Calif.

While taking a soil sample of the dunes this afternoon, an immature male was found buried in the sand.

Mayhew
1959

Callisaurus draconoides

3.

Jan. 30

Kelso Dunes, San Bernardino Co., Calif.

inside the sampling can. The animal was buried from 1-2 inches beneath the surface. The temp. of the sand at this point was 11°C (time was 1215).

The spot was in a hollow between dunes (although in deep sand) that was free of vegetation at that point. There was considerable vegetation nearby, however.

Mar. 6

5 mi. N.W. of 1000 Palms, Riverside Co., Calif.

A young animal was seen at 1005 today. It was the first lizard that was sighted this morning. It appeared to be less than one-half grown.

Mar. 13

Dale Dry Lake, San Bernardino Co., Calif.

Today 3 animals (1 adult σ , 1 immature σ , and 1 intermediate σ) were captured in the same habitat in which we were capturing Uma scoparia.

Mar. 22

2 mi. W. of Kane Springs, Imperial Co., Calif.

An adult f was captured this morning near our campsite. It was the only animal of this species that was seen in the area. The region is quite flat and rather barren.

April 9

Echo Canyon, Death Valley Nat'l. Monument, Calif.

Two adults and one immature was seen about noon today. I was able to stalk the young one until I could put



Mayhew
1959

Callisaurus draconoides

4.

April 9 Echo Canyon, Death Valley Nat'l. Monument, Calif.
my finger on its tail. Then it escaped under a piece of galvanized iron.

Apr. 19 Deep Canyon Des. Res. Station, Riverside Co., Calif.

This morning 2 adults were seen on the east side of the station near the mouth of a small canyon.

Apr. 25 5 mi. W. of Glamis, Imperial Co., Calif.

Today we captured 5 specimens (2 ♂ + 3 ♀). The ♀ seemed a little small for fully mature adults. However, they were the only ♀ caught. The sky was completely overcast all day, but it didn't slow these animals down a bit. All of them were quite "spooky" today.

Apr. 29 5 mi. N.W. of 1000 Palms, Riverside Co., Calif.

Many of these animals were seen on the pavement of the old highway between Harnet and 1000 Palms from 0845 to 0900. At 0910, when temperatures were measured, the conditions were as follows: air temp. (30") - 35.7°C.
" " (1cm) - 38.4°C.

soil surface temp. - 44.4°C.

A couple of animals were seen on the sand near collecting station III during the morning, but none could be captured. At 1420, as we were driving on Highway 111 at the edge of Rancho Mirage, an adult was seen sitting

Mayhew
1959

Callisaurus draconoides

5.

Apr. 29

5 mi. N.W. of 1000 Palm, Riverside Co., Calif.
on the pavement. No surface temp. was obtained at this time, but the air temp. (30") was 41.5°C. (107°F.).

May 22

22 mi. E. of 29 Palms, San Bernardino Co., Calif.

Three animals were caught in the sandy areas between Larrea divaricata bushes. None of them were particularly "spooky." In fact, the adult ♂ captured at noon never moved until the noose was on its neck. The soil surface temp. was $\sim 44^{\circ}\text{C.}$

May 23

7 mi. W. of Glamis, Imperial Co., Calif.

Only one animal was captured today, and that was taken away from a Crotaphytus wislizeni. We couldn't get close to any of them. I followed some for at least 50 yards without success. The soil surface temp. was 57°C. , which may have accounted for the difference in reaction between these animals and the ones seen yesterday.

May 24

2 mi. E. of Garnet, Riverside Co., Calif.

This morning when I awoke, I saw an adult pressed against the ground about 2 feet from my cot. Its head was turned a bit to one side, apparently to try to protect its eyes from the sand grains being blown by the wind. Its eyes were closed, so I simply reached down from the cot and caught it by hand. It didn't move until I had it in hand.



Mayhew
1959

Callisaurus draconoides

6.

June 11

5 mi. W. of Glamis, Imperial Co., Calif.

These animals were extremely spooky in this region this morning. We were unable to even get within noose range of any of these animals. Consequently, we didn't capture any here. This has been our experience in this region on almost every trip in the past as well. In the boundary area between creosote bush scrub and sand dune just east of the Coachella Canal, this species was the most common this trip.

July 20

1 mi. S. of Las Palmas, Riverside Co., Calif.

at 1450 a young animal was seen as it ran ~~up~~ onto the oiled portion at the edge of highway 99. It sat there for a few seconds, ran about 10 feet onto the highway, waved its tail back & forth a couple of times, repeated the operation, then ran off the road and under some brush. We were unable to capture it. At the time, weather conditions were as follows:

air temp. (30") — 40.5°C.

" " (1cm) — 44.0°C.

soil surface temp. — 65.5°C.

relative humidity — 33%

July 22

22 mi. E. of 29 Palms, San Bernardino Co., Calif.

These animals seem to be much easier to capture with a noose than those near Glamis or 1000 Palms. We were able to approach several of these successfully.



Mayhew
1959

Callisaurus draconoides

7.

July 29

Phelan area, San Bernardino Co., Calif.

This afternoon we caught the first animal of this species that we have captured in the Joshua tree woodland habitat in the Mojave Desert. We have seen 2 or 3 before, however.

Nov. 14

Dale Dry Lake, San Bernardino Co., Calif.

A very small young animal was seen about 1300 today. air temp. (30") was 24.3°C. air temp (1cm) was 25°C., soil surface temp. was 33.0°C.

1961

Oct. 7

Ruthven, Imperial Co., Calif.

Two very tiny juvenals were caught at 1410. Both of them measured 29 mm. s-v length.

1962

May 13

Glamis, area, Imperial Co., Calif.

A DOR ♂ (80 mm s-v) was found 13 mi. W. of Glamis. according to our codes it was (83) (4) (8) (22). The testes were too far gone to give me any data.

July 21

Large numbers of young of the year were seen the past two days. These are the first we have seen in this area this year, although Walt Moberly said he saw one last trip out.

Nov. 26

UCKR, Riverside Co., Calif.

This morning Lorei Ostroff brought in 3 dessicated eggs that had been laid in one of her cages. The cage contained an adult ♀ Callisaurus and 2 immature

Audrey
1960

Callisaurus draconoides

7a.

July 15 25 mi E. of 29 Palms, San Bernardino
Co., Calif.

A hatchling was collected this afternoon in the bottom of a dry wash. Air temperature at the time was approximately 42.5°C .

An adult ♂ was also taken at the same locality.

July 16, Dale Dry Lake area, San Bernardino
Co., Calif.

Two adult ♀♀ were taken along the highway today. This makes a total of 2 ♀♀ + 1 ♂ for the two days.

Mayhew
1962

Callisaurus draconoides

8.

Nov. 26

UCR, Riverside Co., Calif.

Dipsosaurus dorsalis. The eggs were obviously too small to have been laid by a Dipsosaurus. Only the Callisaurus was in breeding colors, so the only conclusion that can be drawn is that the eggs were laid by Callisaurus. This animal has been exposed to 24 hours of light per day since approximately Sept. 20, 1962. I don't know how long ago the breeding colors began to appear, but she is in full breeding colors now. The measurements of these eggs in their dried condition are:

12.9 X 7.1 mm
13.0 X 8.2 "
12.4 X 7.6 "

Iay Sugarman gave this animal to Loree just after school started because he didn't have time to take care of it. He had captured it earlier in the summer at Cache Creek in the Mojave Desert. He had kept it on approximately 11 hours of light before he gave it to Loree. Loree thinks the bright colors have been present on it for about one month, but she isn't sure. The lizard has a bright reddish-orange spot on the throat, and some washed-out yellow

Mayhew
1962

Callisaurus draconoides

9.

Nov. 26

UCR, Riverside Co., Calif.

on the sides of the body and base of the tail. No black markings are apparent on the belly.

Nov. 28

Lorei gave me 2 more eggs this morning that presumably were laid by her lizard yesterday. Both were quite desiccated. Nevertheless, I measured them, with the following results:

12.8 X 7.3 mm.

13.1 X 7.2 "

Five eggs have now been laid by that lizard in the last few days. I don't know if she contains any more eggs in her oviducts or not.

1963

April 5

10 mi. W. of Glamis, Imperial Co., Calif.

a ♂ DOR, measuring 70 mm (S-V) was found on the road a few minutes after being hit by a car. It was almost in full breeding color.

May 4

Stoddard Valley, San Bernardino Co., Calif.

Two young lizards were measured and released today: 40 mm and 50 mm (S-V). Several adults also were captured and will be dissected for the reproductive cycle study.

May 5

Dale Dry Lake, San Bernardino Co., Calif.

Several more lizards were caught at this location for the

(C

(C

(C

Mayhew
1963

Callisaurus draconoides

10.

May 5

Dale Lake, San Bernardino Co., Calif.
reproductive cycle investigation.
These will be compared with the
Stoddard Valley lizards, since this
region appears to have received
more rainfall this year than
Stoddard Valley. No annuials were
seen at Stoddard Valley, but a fair
number of annuials are growing
here this year.

May 6

UCR campus, Riverside Co., Calif.

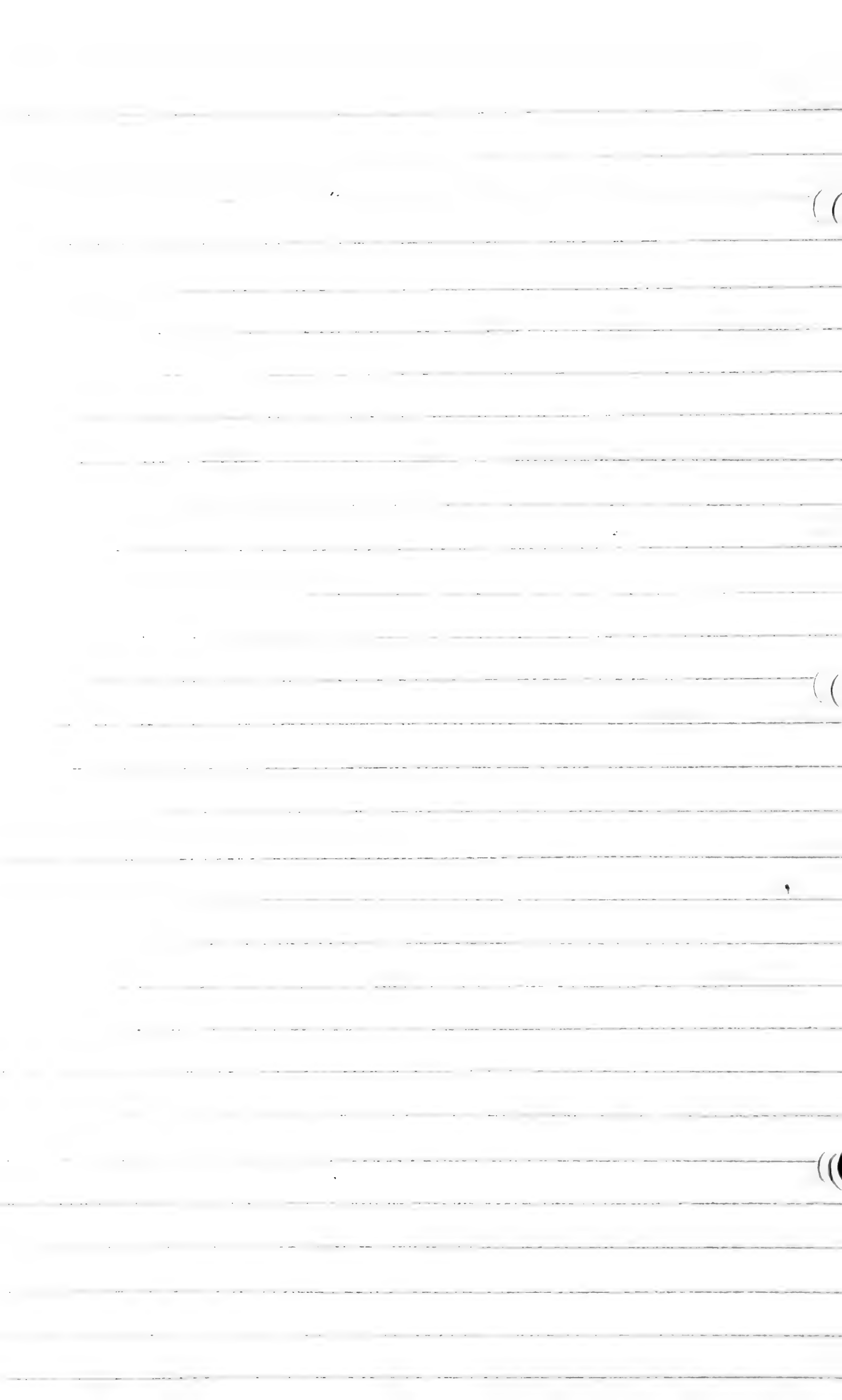
When the animals were dissected
today, I found the ones from Dale
Lake were ready to breed, but
those from Stoddard Valley were
not (even though some of the
largest lizards came from Stoddard).

1964

Apr. 11

Glamis area, Imperial Co., Calif.

John Minnick brought in 2 animals
he caught in this locality. Their
S-V measurements were: ♀ - 68 mm
♀ - 63 mm



Chemidophorus
tigris

Cnemidophorus
tigris

Cnemidophorus Tigris

1.

Mayhew
1957

Mar. 30

Salton Sea, Imperial Co., Calif.

Approximately half a dozen were caught, and several more seen, on the east side of Salton Sea about 16 miles south of Mecca, Riverside Co., Calif.
UCR campus, Riverside Co., Calif.

1958
July 9

A pair were seen copulating in the outdoor cages at 0845 this morning. The tail of the ♂ was under that of the ♀, but he was lying across the body of the ♀. He had a strong grip with his mouth on the skin near her left hind leg. As I watched, the ♀ moved, causing the hemipenis (left one) to pull out of her cloaca. The ♂ didn't retract the bright red hemipenis for perhaps 30 seconds. He still retained his grip on the ♀, however, for as long as I watched (about 2 minutes).

July 15

The ♀ seen copulating July 9 looked gravid, so she was brought into the lab. this afternoon.

July 16

Today at 0700 Frank found 3 eggs deposited in the dry sand at one end of the aquarium. They must have been laid last night or quite early this morning because they were already slightly desiccated. However, he put them in the Vapor-temp at 90°F and ~92% relative humidity. This

Mayhew
1958

Cnemidophorus Tigris

2.

July 16

UCR campus, Riverside Co., Calif.
afternoon I measured them. The measurements were (in mm):

18 X 9.4

18 X 9

19 X 9

July 19

The average measurements were: 18.3 X 9.1.
Today I opened the 3 eggs, since they had become quite desiccated and mold had formed on each of them. No trace of an embryo could be found in any of them. The egg material was still rather runny.

Aug. 1

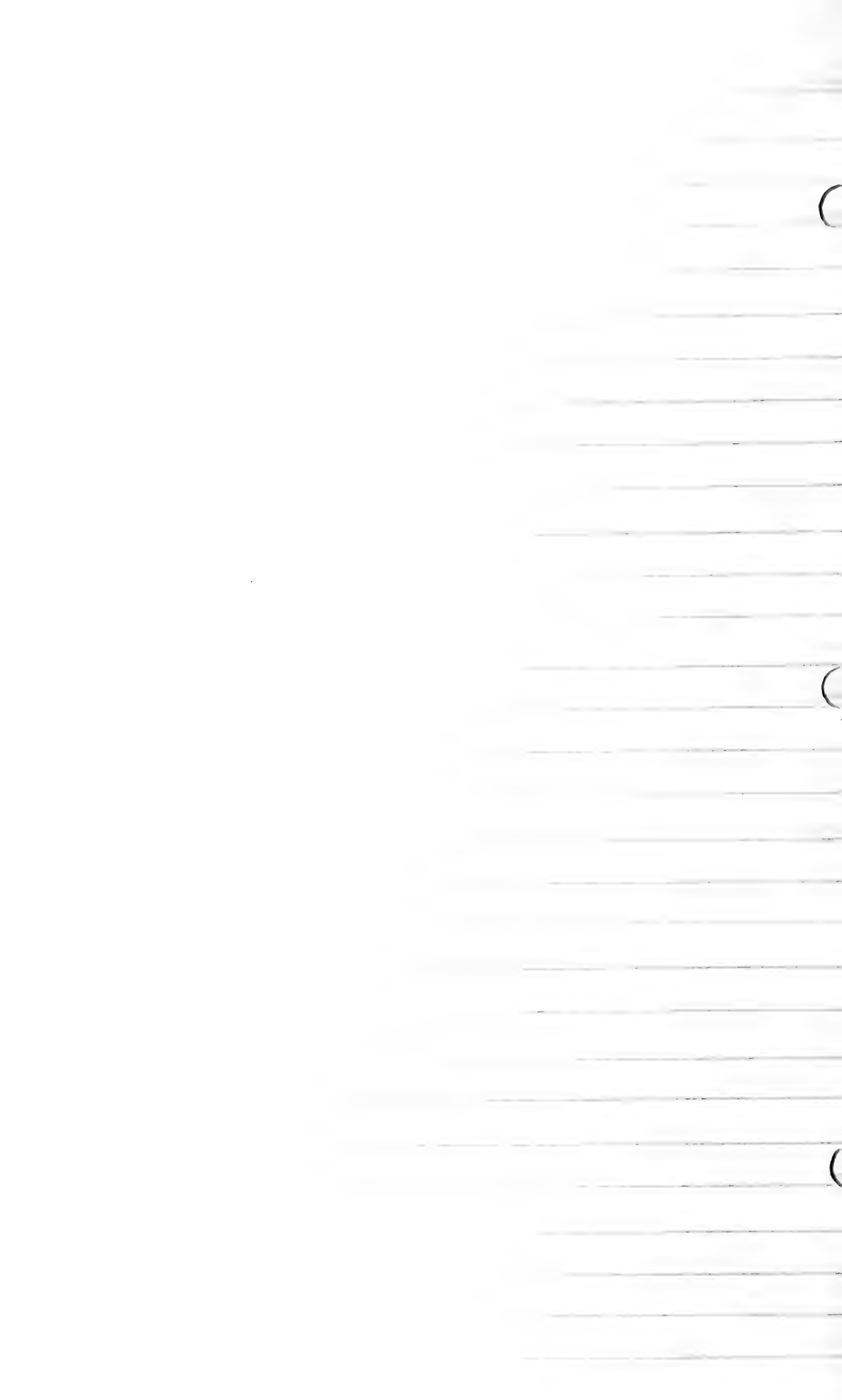
Glacier campground, Mt. Baldy, Los Angeles Co., Calif.

Today Frank Aubrey & I each caught one specimen, a ♂ & ♀. This is 5475 feet above sea level.

Aug. 14

UCR campus, Riverside Co., Calif.

The ♀ captured Aug. 1 on Mt. Baldy was killed today to determine the reproductive status of these animals at this time of year. She had 2 fully developed eggs in the left oviduct, but no sign of eggs in the right oviduct. The right ovary contained 15 ova ranging in size from .25 mm. to 2 mm. in diameter. The left ovary contained 12 ova ranging in the same sizes. The 2 eggs in the oviduct measured 12.5 mm. X 20 mm. and 12 mm. X 19 mm. The right oviduct looked relatively undeveloped at this time.



Mayhew
1958

Cnemidophorus tigris

3.

Sept. 18

Stoddard Valley, San Bernardino Co., Calif.

Several specimens were captured here today. Summer rains have produced several annuals that are now in bloom.

1 mi. N. of Newberry, San Bernardino Co., Calif.

Several animals were seen here this afternoon, but we were unable to catch any.

Sept. 19

11 mi. E. of Glamis, Imperial Co., Calif.

Some animals were seen in a dry wash this afternoon, but none were captured. The surrounding area is quite barren, but a fairly lush vegetative growth is present in the wash.

Sept. 20

3 mi. S. Ocotillo Wells, Imperial Co., Calif.
This was one of the first lizards seen this morning (along with Uta stansburiana).

It was first seen at 0730. At this time the air temp. was 31.9°C., the soil surface temp. was 34°C.

Oct. 17

1 mi. N. of Newberry, San Bernardino Co., Calif.

Relatively few animals were seen here today, but we captured 2 of them.

10 mi. E. of Newberry, San Bernardino Co., Calif.

One specimen was captured among the lava flows of Piagah Crater. At this time the air temp. was 32.2°C., the soil surface temp. was 47.8°C.

Oct. 24

Palm Desert, Riverside Co., Calif.

A couple of animals were seen near

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((

((

Mayhew
1958

Cnemidophorus tigris

4.

Oct. 24

Palm Desert, Riverside Co., Calif.
the mouth of Deep Canyon today.
They were seen at the lower end of
the bajada where palo verde and smoke
trees are fairly common.

1959

Jan. 25

5 mi. N.W. of 1000 Palms, Riverside Co., Calif.

One adult was seen this afternoon
on a dry hillside in the Indio Hills
at about 1550 feet elevation. We
were unable to capture it.

April 9

Echo Canyon, Death Valley Nat'l. Monument, Calif.

Two adults were seen near the old
mining town of Inyo about noon. The
air temp. near the ground was 81°F.
(taken with a dial thermometer borrowed
for the occasion from Ralph + Buddy
Welles).

Apr. 25

5 mi. W. of Glamis, Imperial Co., Calif.

A number of animals were seen today
in very lush creosote bush scrub just
west of the canal skirting the west
edge of the Algodones dunes. However,
they were all so "spooky" we were
unable to capture any of them.
However, we didn't devote much time
in attempting to catch them.

July 29

Hesperia, San Bernardino Co., Calif.

at 1305 an adult crossed the road
in front of us. It didn't seem to be
in any hurry whatever, so apparently

Mayhew
1959

Cnemidophorus tigris

5.

July 29

Hesperia, San Bernardino Co., Calif.

the temperature of the pavement was not bothering it. At this time the temp. conditions were:

(30") air temp. — 37.4°C .

(1cm) " " — 43.5°C .

soil surface temp. — 61.5°C .

est. pavement temp. — 61°C .

Nov. 14

Dale Dry Lake, San Bernardino Co., Calif.

One young animal of this species was caught at 1300. It was the only one of this species seen all day. at the time, weather conditions were:

air temp. (30") — 24.3°C .

" " (1cm) — 25.0°C .

soil surface temp. — 33.0°C .

cloacal temp — 37.0°C .

It was first seen in the sun beside a creosote bush. It was chased 50 feet before its capture.

1961

May 14

5 mi. W. of Glamis, Imperial Co., Calif.

An adult was seen in a hollow within the dunes while we were looking for Uma notata. There was considerable vegetation (living + dead) where the animal was seen, but the spot was at least 2 miles from the edge of the dunes. A good look was obtained by two members of the collecting party even though we were unable to catch it before it went down a hole.

Mayhew
1964

Cnemidophorus tigris

6.

April 15 UCR campus, Riverside Co., Calif.

at 1045 an adult ♂ began to follow an adult ♀ around one of my indoor cages. Both lizards had been captured west of Glamis last week-end (April 11). The ♂ then climbed on the back of the ♀ and nipped at the sides of her neck several times. She was slowly walking about the cage during this procedure. Suddenly the ♂ flipped his tail beneath hers, put his right hind leg across the base of her tail and stood with his right hind foot on top of her right hind foot. Then he curled his body almost into a circle as he grasped her right abdominal wall, just anterior to her hind leg, in his mouth (his tail was under hers from the left side). She made no attempt to escape, but simply laid on the ground with her eyes closed. No pelvic thrusts were observed during the entire performance. The ♂ remained attached to the ♀ in this manner for almost exactly 5 minutes. At that time the ♀ simply stood up and walked out from under the ♂. He dropped his hind quarters

Mayhew
1964

Cnemidophorus tigris

7.

April 15

UCR campus, Riverside Co., Calif.

across the sand a few times after that, then wandered off in another direction.

at 1310 a smaller ♂ in the same cage was observed trying to mate with a Phrynosoma m'calli that was also in the cage, but the P. m'calli wiggled so violently the C. tigris couldn't hang on. The C. tigris tried to catch the ♀ C. tigris, but was not successful. She ran every time he approached. He finally succeeded in straddling the large ♂ that mated with the ♀ this morning. The large male simply continued to walk about the cage continuously. The smaller ♂ tried to get its tail ~~under~~ under that of the other, but could not. Each time he stepped on the hind foot of the larger ♂ in the manner used by the larger ♂ in mating this morning, the larger ♂ simply kicked the smaller ♂'s foot off. They criss-crossed the cage half a dozen times or so before the smaller ♂ climbed off.

John Minnick brought a S-V measurement of an animal he caught last week near Glamis, Imperial Co., Calif. It measured 77 mm.



Coleonyx
variegatus

Coleonyx
variegatus

Mayhew
1956

Coleonyx variegatus

1.

Nov. 15

UCR campus, Riverside Co., Calif.

A grammar school student brought in an adult that he had caught in a crevice in the rocks. These rocks are located at the western edge of Sugarloaf Mt. in the Box Springs Mts. just north of the University of California Canyon Crest Housing Project.

1957

Mar. 30

Ocotillo Wells area, Imperial Co., Calif.

Tonight 25 of these were collected on roads west of the Salton Sea. Fifteen were collected between Ocotillo Wells and the gypsum mine near Split Mountain. The remainder were caught on the Julian Road and on the road to Borrego. The evening was cool with some wind blowing, but not enough to make it uncomfortable. Every one was captured while it was lying on the road.

1958

Aug. 24

Ocotillo Wells area, Imperial Co., Calif.

Two young of the year were caught on the road tonight in this region of the desert.

Sept. 19

5 mi. W. of Glamis, Imperial Co., Calif.

Tonight at about 1915 an adult was collected on the road through the sand dunes from Glamis to Brawley.
air temp. - 32.2°C ., soil surface temp. - 31°C ., ^{road} temp. - 35.5°C

Mayhew
1958

Coleonyx variegatus

2.

Sept. 19

Ocotillo Wells, Imperial Co., Calif.

Tonight one adult was captured on the road near here. At this time the air temp. was 31.5°C . and the soil surface temp. was 29°C .

Nov. 14

5 mi. W. of Glamis, Imperial Co., Calif.

An adult was found sitting on the surface of the sand beneath a discarded automobile seat. It was quite active the moment it was exposed.

1959

Mar. 20

6 mi. W. of Glamis, Imperial Co., Calif.

An adult ♀ was captured while we were night collecting on our way to our campsite. It was the only one seen.

Mar. 21

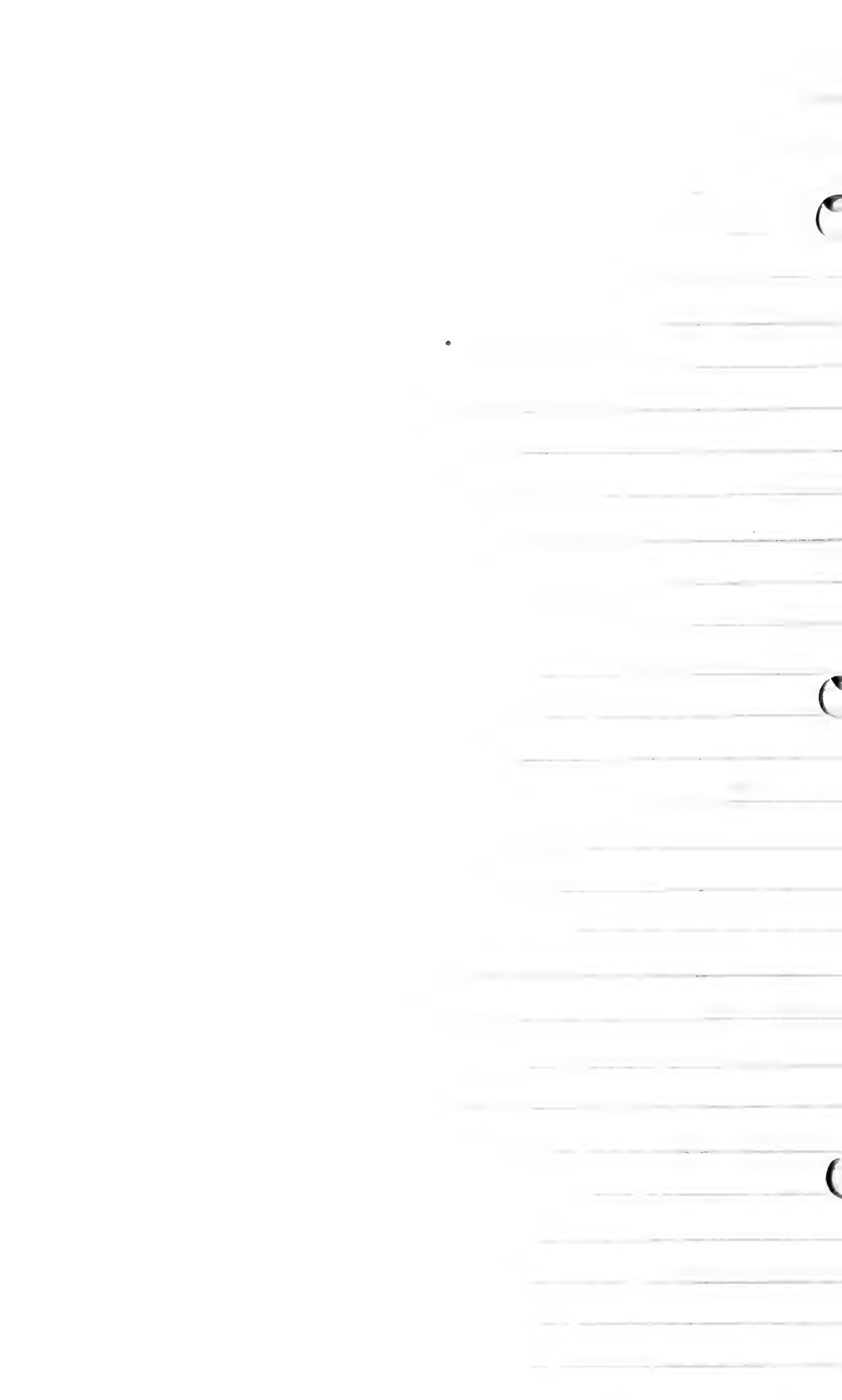
Near Ocotillo Wells, San Diego Co., Calif.

Two were seen early this evening on the road (1 adult, 1 immature) but only the young one was captured. Later we released it.

Apr. 24

Glamis area, Imperial Co., Calif.

Tonight, between 2005 and 2215, a total of 15 animals were caught on the pavement between Brawley and the Ogilby - Palo Verde Road on the road through Glamis. One of these (adult or) was released, however. Most of them were lying flat against the pavement, soaking up the heat from the pavement. Some undoubtedly



Mayhew
1959

Coleonyx variegatus

3.

Apr. 24

Glamis area, Imperial Co., Calif.

were still on the pavement after 2215, but we had our sample of this species by this time, so we stopped looking.

May 22

Glamis area, Imperial Co., Calif.

Although we covered 25 miles of road, Coleonyx were found only between the 2 large irrigation canals west of Glamis (1 animal caught at the sand dunes). 10 of the 17 animals caught tonight were found 9 to 11 miles West of Glamis, indicating this region must be best for this species in this region. Animals were still being found on the pavement when we quit for the night at about 2315.

June 10

We covered the same road area this month as last, but again we found animals on a restricted portion of it. Most of the animals were captured in the region of the sand dunes west of Glamis, but a few were captured between the canals. No animals were seen east of Glamis. Thirteen animals were caught tonight (6 ♂, 7 ♀).

July 21

5 mi. W. of Glamis, Imperial Co., Calif.

Two newly hatched animals were found on the road tonight. Almost no adults were seen, however. Only 2 adult ♀ were seen and captured all evening. There was a full moon, which may have caused the scarcity of animals - who knows?



Mayhew
1959

Coleonyx variegatus

4.

Nov. 15

5 mi. W. of Glamis, Imperial Co., Calif.
at 1100, while looking for Uma
notata beneath bushes, an adult ♂ was
sighted on the ground in the shade
beneath a Croton californicus. There
were no holes that we could find
from which it had been disturbed. It
was found when we first approached
the bush, so we are sure we didn't
cause it to emerge from hiding. About
a minute later we caught (and
released) an immature animal beneath
the same plant. The adult ♂ was also
captured, but retained (#82). We took a
soil surface temperature, but unfortunately,
not in the shade of the plant where
the animal was first seen. (That spot
was considerably disturbed by the time
the animal was captured, since it
escaped from Frank at first.) The
plant was quite dense, so that relatively
little sunlight was reaching the animals.

1961

Mar. 6

UCR campus, Riverside Co., Calif.

Today at 1320 I found an adult female
when I turned over a piece of packing case
lying on the ground. The packing case
had formed part of a blind we had used
on B section to observe Sceloporus
orcutti. although the air temp. (30") at the
time was only 16°C., the animal was quite
active when captured.

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Audrey
1960

Coleonyx variegatus

4a.

~~July 16~~ July 16 - Yuma Sand Hills, Glamis area,
Imperial Co., Calif.

We started night collecting shortly before 1930 and, within the first mile, spotted a very small, immature Coleonyx on the road. The air temperature at this time was 38.5°C & the road surface temperature was 43.6°C . The ~~specimen~~ ^{animal} was much too small for a cloacal temperature record so it was not collected. At 1945, 11 mi W. of Glamis, we picked up an adult ♀ with a cloacal temp. of 37.5°C . Altho it was a calm, moonless night we did not see another lizard in three complete round trips between the canals.

Mayhew
1961

Coleonyx variegatus

5.

Apr. 15

Glamis area, Imperial Co., Calif.

Tonight the field zoology class night collected along the Brawley-Glamis Road from 1640 to 0035. During that time (1st one at 1855) we caught 46 animals of this species between the Highline Canal & the end of the pavement east of Glamis. Nearly all were caught between Glamis & Highline Canal. The weather was warm with no moon visible. 3 cars collected.

Apr. 21

Tonight one car drove from Highline Canal to Glamis once. We reached the canal at 2000. Only 1 live & 2 dead animals were seen tonight. The weather was cool and rather windy. This was the same area collected a week ago. Min. temp. tonight was 50°F.

May 13

Tonight we collected 9 animals in two passes between Glamis & the Highline Canal, & 2 additional passes between Glamis & our campsite on top of the big dune (36 miles). We began looking at 1945 and looked until 2215. The weather was about perfect this evening as far as we humans were concerned.

May 14

This morning 3 students from San Diego State College told us they caught 8 Coleonyx last night between 2230 and 2330. They looked from 2 mi. W. of Coachella Canal to Glamis on one pass.

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Mayhew
1961

Coleonyx variegatus

6.

Oct. 3

UCR, Riverside Co., Calif

Bill Tinsdell caught a second juvenile today in the same trap he caught one in Sept. 29, 1961. The trap is just below (west) the big rock pile south of the avocados grove on campus. The one caught 9/29/61 measured 35 mm. S-V length. The one today measured 34 mm. This one was toe-clipped (#1) & released at the same site (by trap #4).

Oct. 6

Bill Tinsdell trapped an adult that measures 60 mm. S-V length.

1963

Mar. 15

Glamis Area, Imperial Co., Calif.

We looked for this species from 2030 to 2120 without any sign of a lizard (16 miles). The temperature was quite low, however.

Mar. 16

We looked from 1845 to 1910 (11 miles) with the same success we had last night. Tonight the air temp. was 17.6°C & a 5-8 mph. breeze was blowing from the northwest. The sky was 100% overcast as well.

April 28

Two DOR's were in good enough shape to measure tonight:

♀ - 57 mm (S-V)

♂ - 48 " "

Dec. 19

UCR, Riverside Co., Calif.

This morning, while digging up some Phrynosoma m'calli in the outdoor

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Mayhew
1963

Coleonyx variegatus

7.

Dec. 19

UCR, Riverside Co., Calif.

cage for O_2 consumption measurements, I uncovered 2 of these lizards. They apparently had been overlooked when Ken Evans removed his lizards from the cage. Both animals were fat, adult males, and both were in the same burrow chamber, within an inch of each other. The chamber was dug off the main burrow of a Phrynosoma m'calli, and he was found about an inch from the chamber entrance. The chamber was 14 inches from the burrow mouth, and $7\frac{1}{2}$ inches beneath the sand surface. One lizard (weight - 6.3 gms) had a cloacal temperature of $11.6^\circ C$, the other (weight - 7.9 gms) had a temperature of $12.0^\circ C$. I returned the lizards to Ken Evans.

1964
April 13

While digging for Phrynosoma m'calli in the outdoor cages today I uncovered another Coleonyx of Ken Evans. It was an adult ♂ in fine shape (75 mm. S-V length, 6.7 gms.).

John Muenich gave me some measurements of lizards he caught near Glamis this week-end (April 11):

♂ - 62 mm.	♀ - 60 mm.	♂ - 61 mm.
♂ - 56 "	♀ - 63 "	♂ - 65 "
♀ - 56 "	♀ - 65 "	♂ - 53 "

Mayhew
1964

Coleonyx variegatus

8.

June 9

UCR campus, Riverside Co., Calif.

Today one of the ♀♀ we brought back from the Glamis area last week laid 2 eggs beneath a piece of concrete pipe in its cage. The eggs were rather hard-shelled and were still quite turgid. They measured:

<u>Size</u>	<u>weight</u>
19.1 X 9.3 mm.	0.95 gms
18.7 X 9.2 "	0.90 "

They were placed in the Vapor Temp relative humidity chamber on moist sand. They are being incubated at 92°F and about 98 % relative humidity.

June 22

One egg was found on the sand in good condition today. It measured 14.8 X 8.8 mm. (weight - 0.42 gms.).

July 5

Two more eggs were laid today in the laboratory. Their measurements were:

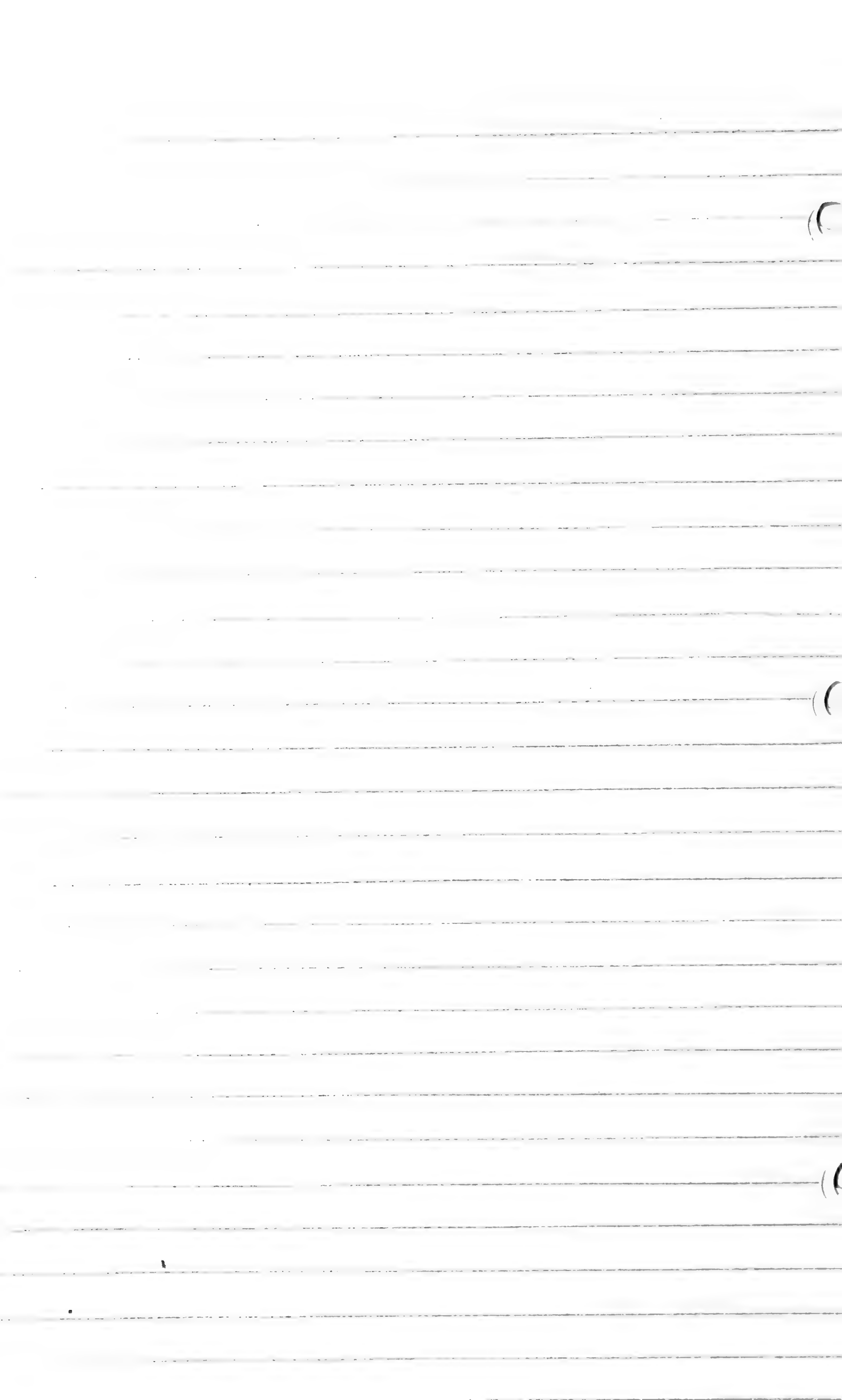
19.6 X 9.8 mm.	(1.12 grams)
19.7 X 9.8 "	(1.11 ")

These were placed in the Vapor Temp at 100°F. at 85% Relative humidity.

1967
Aug. 15

Glamis area, Imperial Co., Calif.

Tonight Yehudah L. Werner (from Hebrew University, Jerusalem) & I found 19 Coleonyx (caught 17) on the Glamis Road tonight between 1930 and 2040. August normally is a very bad month to try to collect this



Mayhew
1967

Coleonyx variegatus

9.

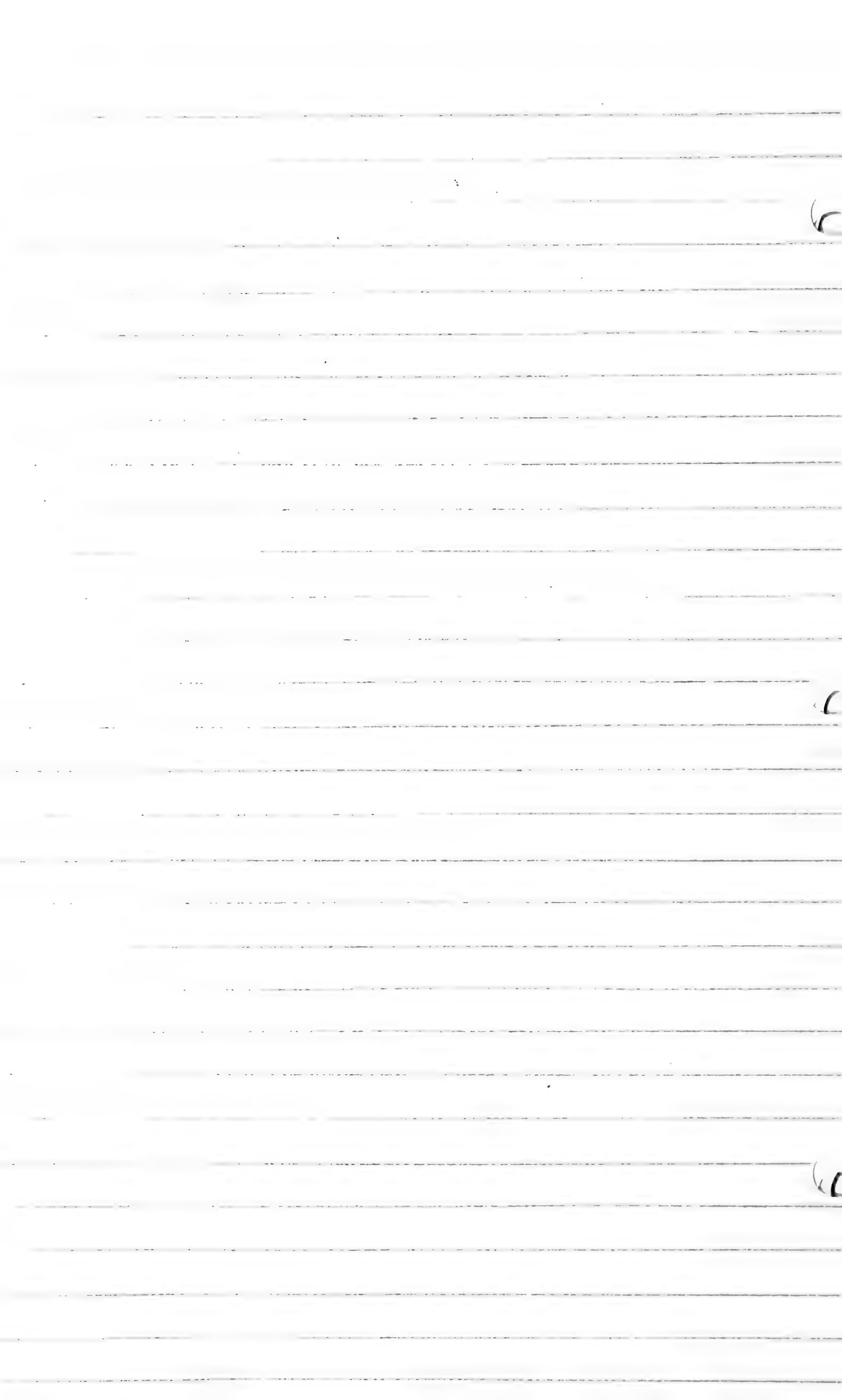
Aug. 15

Glamis area, Imperial Co., Calif.
species, but tonight was excellent. These lizards were feeding on the tremendous number of termites that had emerged following a rather heavy rain 3 nights before (also some rain ^(~1/2") the night before). The road temperature at 2000 was 36.5°C , the sand surface temperature was 29.5°C . The same temperatures prevailed when we quit looking for lizards at 2040 (no lizards had been seen for some time before that time. The moon was nearly full at this date.

1968

Oct. 10

Michael Kruse and Bob Drwin (UCR students) collected 8 lizards between the canals near the Algodones Dunes last night (Oct. 9). This included 2 newly hatched juveniles and one gravid female. This is, to my knowledge, the first time gravid ♀ have been found in October.



Crotalus cerastes

Crotalus cerastes

Mayhew
1958

Crotalus cerastes

1.

May 17

Stoddard Valley, San Bernardino Co., Calif.

Two adults were found this morning resting in the shade just inside the mouths of Sophorus agassizii dens. Mark Kohn caught one of them and brought it back to camp. Later Rudy Ruibal demonstrated how fast the hot desert sand can kill a sidewinder. The surface temp. was 145°F . (air temp. 108°F .) when the snake was placed on the sand. Four and $\frac{1}{2}$ minutes later, approximately, the snake was dead.

Sept. 19

5 mi. W. of Glamis, Imperial Co., Calif.

Tonight about sundown two juvenals were seen resting on the surface of the sand in the sand dunes. Neither of them seemed overly disturbed by our presence nearby.

3 mi. S. of Ocotillo Wells, San Diego Co., Calif.

Tonight we killed an adult at the edge of an alfalfa field. The farmers here tell us that these snakes become very numerous around the irrigated alfalfa fields in this part of the desert, apparently because of the abundant rodent population on which they can feed.

1959

Jan. 31

Superstition Mts., Imperial Co., Calif.

a newspaper man reported seeing one today.



Mayhew
1959

Crotalus cerastes

2.

Mar. 13

3 mi. W. of 1000 Palms, Riverside Co., Calif.

Tonight at approximately 1930 an adult was seen coiled at the edge of the pavement on the old highway. By the time we allowed the cars following us to pass, it had escaped into the sandy area beside the road. No temperature data were collected because we were late, and the wind was blowing a gale.

Mar. 21

4 mi. S. of Ocotillo Wells, San Diego Co., Calif.

Tonight one young animal was seen on the road. It had only a button at the end of its tail. We pushed it off the side of the road with one of our hooks.

Apr. 24

Glamis area, Imperial Co., Calif.

Two of these animals were found on the pavement after they had been run over by cars this evening. No others were seen.

Apr. 25

5 mi. W. of Glamis, Imperial Co., Calif.

This afternoon about 1340, under a completely overcast sky, an adult was found coiled in the sand at the eastern edge of an Eriogonum sp. plant. It was partly covered with sand. It made no move until Frank Aubrey removed it from the sand with his snake hook. Then the animal struck wildly in all

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Mayhew
1959

Crotalus cerastes

3.

- Apr. 25 5 mi. W. of Glamis, Imperial Co., Calif.
all directions. Since it was found on
our collecting site, Frank dispatched it.
- May 21 5 mi. E. of 29 Palms, San Bernardino Co., Calif.
This evening 2 adults were seen on
the road a couple of miles apart.
No others were seen during the entire
evening of night collecting.
- May 22 Area west of Glamis, Imperial Co., Calif.
Two adults were seen on the road
tonight, one of which had just been
hit by a car. These were seen in the
sand dune area.
- May 24 5 mi. N.W. of 1000 Palms, Riverside Co., Calif.
This morning about 0900 one was
seen at the entrance to a burrow
into a sand dune covered with creosote
bushes. As soon as it saw me, it
hurried into the depths of the burrow.
- May 29 This morning Frank Aubrey & I found 2 adults
curled up in the sand at the base of
Larrea divaricata. One of them was
almost completely covered with sand,
so it was rather difficult to see.
Both of them were in shady spots.
Neither of them ever rattled, even when
hoisted from their hiding places. Since
both of them were on collecting station
III, Frank disposed of them. They were
less than 100 yards apart in the
region of the large sand hummocks.



Mayhew
1959

Crotalus cerastes

4.

June 9

11 mi. E. of 29 Palms, San Bernardino Co., Calif.

Two animals were found on the road about 1/4 mile apart (one seen at 1925, the other at 1930). The weather was calm and warm with no appreciable wind blowing.

Aug. 31

Palm Springs, Riverside Co., Calif.

at 0820 an adult was found resting on sand in the shade of Ephedra sp. & creosote bush. It was almost fully extended when found. The soil surface temp. at that spot was 36.0°C .

Nov. 14

5 mi. W. of Glamis, Imperial Co., Calif.

at 1745 an adult was found on the road that had just recently been run over by a car. The back portion of the animal was crushed, but it was still alive. We put it out of its misery. at that time, weather conditions were: air temp. (30") - 22.2°C . The next
~~day~~

day we found one set of sidewinder tracks near this location, but the snake was gone from the spot. These were the only sidewinder tracks we saw in the dunes this trip, whereas last month their tracks were very abundant.



Mayhew
1960

Crotalus cerastes

5

Mar. 7

Dale Dry Lake, San Bernardino Co., Calif.

at 1115 we saw a young animal almost completely covered with sand at the base of a creosote bush. The soil surface temp. at the time in the animal's location was 31.4°C. , the air temp. (30") was 22.2°C.

Mar. 10

3 mi. N.W. of Palm Springs, Riverside Co., Calif.

at 1240, while following a Callisaurus draconoides, I was puzzled by its sudden stop under some Ephedra

When I looked more closely, I saw that its head was in the mouth of a sidewinder. It had been on the surface of the ground beneath a dense mat of the Ephedra. It dropped the lizard, coiled, and began rattling when we opened the spot with hooks. The lizard crawled about ~~a~~ foot and died.

Apr. 11

42 mi. E. of 29 Palms at San Bernardino - Riverside Co. Line, Calif.

at 1745, while preparing chow, I spotted an adult stretched out at full length on an open spot of ground. The weather was quite cool (see misc. collection sheets). We had been within 30 feet of the spot for over 25 minutes before it was observed. Frank Aubrey took it to a hole and released it.

April 28

Palm Springs, Riverside Co., Calif.

at 1005 an adult was seen resting in broken shade at the entrance to a hole beneath a Larrea divaricata. at the time, the air temp. (30") was 20.8°C. , air temp. (1cm) was



Mayhew
1960

Crotalus cerastes

6.

April 28

Palm Springs, Riverside Co., Calif.

21.2°C., soil surface temp. was 31.8°C. When prodded, it would arch its back off the ground and move slowly down slope toward level ground. At 1210 another adult was seen resting in broken sun on the south side of an accretion dune in broken sunlight. The dune was at the base of Larrea divaricata. At this time the air temp. (30") was 21.5°C., air temp. (1 cm) was 23.6°C., soil surface temp. was 36.0°C. When both animals were found a N.W. wind of 15-25 mph. was blowing. Neither animal was disturbed by our presence. Neither was coiled when first observed, nor made any attempt to coil while we watched them. Both were permitted to remain where they were.

April 30

Glamis area, Imperial Co., Calif.

While night collecting, 2 recently killed specimens were found on the road. One was adult, 1 was quite young. (18 mi. + 11 mi. W. of Glamis)

May 1

an adult was found when it bit a lizard that was being chased by members of the field zoology class. The snake was captured & held until the entire class was assembled, then was released near the Coachella Canal.

1961

Mar. 5

5 mi. W. of Glamis, Imperial Co., Calif.

Bill Tuesdell & Dave Young caught 2 adults under a single bush this morning.



Mayhew
1961

Crotalus cerastes

7.

April 9

Palm Springs, Riverside Co., Calif.

at 1315 2 adults were seen under a single Larrea divaricata in broken shade. They were coiled side by side. Walt Moberly poked his lizard pole at them, but they didn't respond. Then he poked one of them in the ribs, but it didn't rattle or strike. The same response was seen when he poked it on the nose with the pole, an adult Dipsosaurus dorsalis was captured 4 feet away under the same bush.

1962

Mar. 28

Palm Springs, Riverside Co., Calif.

an adult was seen at 1300 in broken shade beneath a Larrea divaricata. It was coiled in a depression in the sand. The air temperature (1 meter) at the time was 28.0°C. The sky was about 99% overcast. It contained 12 rattles. It made no movement until we looked it out from beneath the plant.

Apr. 14

Glamis area, Imperial Co., Calif.

During the past 2 days we have seen a total of 12 animals, as well as the tracks of several more. Two of them were found within 75 feet of our campsite 1 mile east of Glamis. Five were found during the day & 7 at night. Some (3) were in the dunes & some were in the creosote bush scrub.



Mayhew
1963

Crotalus cerastes

8.

Aug. 4

Indio, Riverside Co., Calif.

John Kitasako, a student in Field Zoology last spring caught an adult ♀ this evening. He kept her for a while, and observed her giving birth. The following are the notes he gave me when he brought me the specimens:

• ♀, 21.6 inches long, collected at 2000 1 mile northwest of avenue 58 and Jefferson St., Indio. There was no wind, no clouds, and a full moon. The snake was found curled up near the base of a Larrea divaricata in typical creosote bush scrub habitat on sandy soil.

Aug. 9

The above ♀ began giving birth at 1125 and finished at 1330. Total of 8 young. It required approximately 5 minutes to give birth to each young. Each youngster was born in a membranous sac around it. They were not all born head first, or in any other repeated manner. Just a few minutes after each was born, it would work its way out of the membranous sac. The average interval between births was about 10 minutes, but the



Mayhew
1963

Crotalus cerastes

9.

Aug. 9

Indio, Riverside Co., Calif.

time was rather variable. The births occurred in a square glass jar (5 1/2" on a side and 10 1/2" high). There was no sand or any other medium for a substrate on the bottom of the jar. The young assumed a striking attitude immediately after birth. There is a single button on the tail of each young snake.

Aug. 10

The ♀ and the 8 young were preserved in formalin this evening. The measurements of the young were:

17.4 cm	16.7 cm
16.4 "	16.3 "
17.0 "	16.6 "
16.6 "	16.1 "

1969

Palm Springs, Riverside Co., Calif.

April 19

This morning at 0930 a pair of this species were observed copulating at the base of a Larrea divaricata. The bush was rather dense so no details could be observed. It appeared as though both snakes were coiled together in a rather random manner. The male is slightly smaller than the ♀.

May 3

Stoddard Valley, San Bernardino Co., Calif.

at 1035 this morning I observed a pair of C. cerastes copulating on



Mayhew
1969

Crotalus cerastes

10.

May 3

Stoddard Valley, San Bernardino Co., Calif.

open ground in full sun. They were at least four feet from the nearest bush (Larrea divaricata). The ♂ had his tail over and wrapped beneath that of the ♀. His tail crossed hers at a right angle, and was passed beneath hers also at a right angle. She was slightly larger than the male. She was in a compact S-shape, and the ♂ was closely wrapped around her on the outer perimeter of her body. The ♀ had her head resting on the body of the male about $\frac{1}{2}$ along his length. The pair were seen when I had gotten within about 6 feet of them.

Neither of them moved at all as I approached them. I retreated a step or two, then sat down to observe. One student (Robert Peters - in my University Extension Herpetology class) was with me at the time.

after observing for a few minutes, he returned to looking for lizards. another student (Douglas Williams) arrived, then returned to the car to get his camera and spotting scope. I continued observing while he was gone. After everyone left me, and I had remained motionless (except for

Mayhew
1969

Crotalus cerastes

11.

May 3

Stoddard Valley, San Bernardino Co., Calif.
writing notes) for a couple of minutes, the ♂ began to move his head in short, jerky movements over the body of the ♀. She remained motionless the entire time. As he moved his head about, he continued to rapidly flick his tongue out of his mouth. In this manner he explored nearly the entire dorsal surface of the ♀. Periodically (at 2-3 minute intervals) the ♂ would **contract** the latter portion of his body, including the tail. This would jerk the tail of the ♀, but the pair remained joined together throughout this procedure. This jerking of the tails caused the pair to rotate slightly in a clockwise direction. The tails moved about 6 inches in this manner during the first 15 minutes of observation.

The air temperature was rather cool for this time of year, due partly to a wind of 10-15 mph. blowing all day. After I had observing the snakes for 20 minutes, Douglas returned with his camera. He was able to get 2 pictures at fairly close range without disturbing the snakes. However, he made a rather quick movement as he started to move back from the snakes. This

Maghew
1969

Crotalus cerastes

12.

May 3

Stoddard Valley, San Bernardino Co., Calif.
sudden movement startled the ♂, and he immediately deserted the ♀ and moved rapidly to the nearest Laurea. We immediately retreated a few feet behind another bush. In approximately one minute he had returned to the ♀, who had remained motionless all this time. When the ♂ returned, he passed over her body, then began to move his body over that of the ♀ in a manner & similar to that observed while they had been mating earlier. He rested in his movements frequently, then he would explore for her tail with his tail. However, he did not continue mating during the following 10 minutes, although to all appearances he could have. I suspect our presence had something to do with this, although we had retreated to about 30 feet from the snakes and were observing them with binoculars & spotting scope. After this 10 minute interval, I walked back to the cars to get the other students while Douglas continued to observe through his spotting scope. Upon my return, I saw the snakes were about 20 feet from where I had last seen them. Both snakes were positioned essentially as before.

Mayhew
1969

Crotalus cerastes

13.

May 3

Stoddard Valley, San Bernardino Co., Calif.

However, Douglas said considerable movement had occurred in my absence. Another student had walked by within 20 feet of the snakes, and this had caused the ♀ to separate from the ♂ this time (actual mating had not begun after I left for the cars). He said she did not side-wind, but went in a straight line. She went to a nearby bush at first, then moved to the spot where both were located now. The ♂ remained behind for several minutes, then followed the path of the ♀, rather than going in a straight line to her new position. Mating still had not been resumed when I returned, even though both were in proper position. We watched for another 30 minutes from a distance of about 30 feet, but no change occurred in the positions or attitudes of the two snakes. The head of the ♂ was resting on the back of the ♀, and was facing our direction. Douglas planned to camp for the rest of the week-end in that general area, so I decided that all the rest of us should leave. He could then watch by himself, and perhaps the snakes would cooperate.

(1)

(2)

(3)

Crotalus mitchelli

Crotalus mitchelli

Mayhew
1960

Crotalus mitchelli

1.

May 20

8 mi. S. of Barstow, San Bernardino Co., Calif.

An adult ♂ was seen at 1715 on the shady side of a pile of rocks. It was looped over a stone in the shade. It was fully extended with its head hanging down a bit beyond the rock on which it was resting. I was about 4 feet away when I saw its rattles and about 6 inches of its tail. It didn't move during the approximately five minute wait for Frank to arrive with the snake noose. Only after the noose was over its head did it rattle. It measured 36 inches in length.

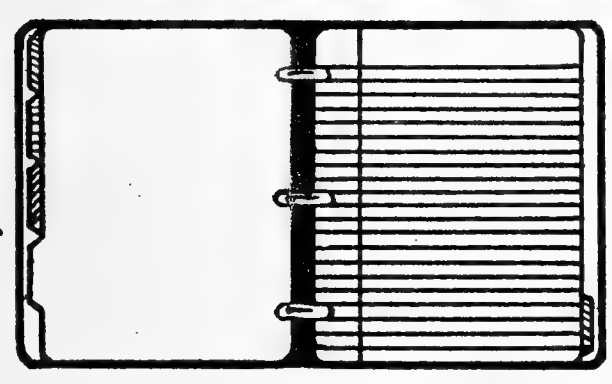
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US

(

LOOSE LEAF INDEX

DURABLE INDEX
DIVIDERS, SUITA-
BLE FOR SCHOOL
OR COMMERCIAL
USE



IDEAL FOR CLAS-
SIFYING OR SEPA-
RATING STUDIES,
VARIOUS SUBJEC-
TS OR MISCELL-
ANEOUS DATA.

CLASS SCHEDULE

PERIOD TIME	FIRST	SECOND	THIRD	FOURTH	FIFTH	SIXTH	SEVENTH	EIGHTH
COURSE MONDAY INSTRUCTOR								
COURSE TUESDAY INSTRUCTOR								
COURSE WEDNESDAY INSTRUCTOR								
COURSE THURSDAY INSTRUCTOR								
COURSE FRIDAY INSTRUCTOR								
COURSE SATURDAY INSTRUCTOR								

NAME _____

SCHOOL _____ CLASS _____

HOME ADDRESS _____

CITY _____ TELEPHONE _____

Crotalus ruber

Mayhew
1958

Crotalus ruber

1.

July 10 UCR campus, Riverside Co., Calif.

This morning a large specimen was seen beneath the large rock on which #4 + 5 Sceloporus orcutti were captured. Dee Munro caught it with a lizard noose and had it out of the cavity a ways before the noose broke + the animal escaped. It retreated back under the same rock. Dee + Frank Aubrey were unable to get it out.

July 18 Dee Munro caught a fairly small specimen this morning about 0900. It was near some brush a short distance below rock 30. It was stretched out on a rock. He caught it with a lizard noose and brought it back to the lab. where it was added to the field zoology collection. It is 27 inches long and possesses 5 rattles.

Oct. 12 Today while Dee Munro was watching Sceloporus orcutti on B study area on campus, he came upon a large ♂ coiled in a crevice in a rocky outcrop behind some vegetation. He had no collecting gear with him, so he made a noose out of a piece of pipe + a piece of rope at one of the blinds. He took this back to the site and caught the rattler. He said it rattled a couple of times, but never tried to strike. The snake

Mayhew
1958

Crotalus ruber

2.

Oct. 12

UCR campus, Riverside Co., Calif.
is 46½ inches long (snout to vent),
52 inches long (snout to tip of rattles),
about 2½ inches in diameter at the
widest point. It contained 10 rattles
and a button (these were broken off
during capture). It weighed 1826 grams
(4.05 pounds). It was captured near
81 rock. The interior of the snake
was ~~filled~~ laterally packed with
fat bodies. It apparently was
preparing to hibernate.

1959

Jan. 21

This afternoon one of the fellows in
CES climbed the large hill just north
of study area A (Mt. Julius). On the
way back down he saw what he said
was a fairly large rattler sunning
itself on a rock. It escaped under
the rock pile before he could get it.

Jan. 22

Dick Burnett from CES returned to
Mt. Julius at noon today to see if
he could find that rattler again. He
found it in the same spot that he saw
it yesterday. He was able to get a
couple of pictures, but couldn't get
the snake.

Jan. 23

Dick Burnett went looking for that rattler
about 10 AM. He found one about 10 yards
from where he saw one yesterday, but this one
seemed bigger to him. He wasn't able to catch it.

Mayhew
1959

Crotalus ruber

3.

Jan. 27 UCR campus, Riverside Co., Calif.

Dick Burnett captured a single snake about noon today on the side of Mt. Julius. It is about 3 feet long.

Mar. 3

Today Warren Groves & Loree Ostroff saw a large specimen lying on a dirt road about 4:30 P.M. near the southern boundary of UCR. It remained on the road even after they passed over it in a car (straddled it).

Mar. 12

Dick Burnett caught another rattler today. It was S.E. of the reservoir. It was reported to be approximately 4 feet long (after he measured it, he found it was 52 inches long).

Mar. 15

Dr. Hewell & his children saw an adult this afternoon in the canyon that will form part of the UCR Botanical Garden. He did not disturb it. He estimated it to be about 4 feet long.

May 29

Box Springs Mts., Riverside Co., Calif.

This afternoon at 1530 a young animal (~2 feet long) was seen on the dirt road coming down from the summit. It was fully extended in the middle of the road. Frank moved it off the road with his snake hook. It never rattled at any time it was on the hook, but did rattle briefly when Frank dropped it to the ground.



Mayhew
1959

Crotalus ruber

4.

Aug. 5

Box Springs Mts., Riverside Co., Calif.

a large animal (~ 3 ft. long) of undetermined sex was seen at 0900 by Frank Ambrey + Charles Filippini in a runoff ditch at the side of the road. They stopped the car to chase a lizard + were unaware of its presence until it began to rattle when Filippini opened the car door to get out. There was a farm about 50 yards west of the spot, so Frank killed the snake with a snake hook. The gonads were not preserved as he had no preservative along. The snake was shielded from the direct rays of the sun by Eriogonum fasciculatum. The temperature was as follows:

air temp (30") - 28.5°C .

" " (1cm) - 30.5°C .

soil surface temp. - 42.0°C .

1961

Feb. 25

UCR campus, Riverside Co., Calif.

This morning at 1045, while chasing Sceloporus orcutti with the field zoology class, I spotted a large rattler coiled beneath a rock. It was well hidden by dead vegetation in front of the rock. Walter Moberly had just spotted one on the opposite side of the same large rock outcrop less than 5 minutes before. The one Walt saw escaped into a rock crevice, however. The one I spotted had had

Mayhew
1961

Crotalus ruber

5.

Feb. 25

UCR campus, Riverside Co., Calif.

Several students walk past it within a very few feet earlier. Ray Folmar & I returned to LSB for snake collecting gear while the remainder of the class stayed around the snake so it wouldn't crawl away. We returned to the site to find the snake hadn't changed position at all. I was able to noose him and drop him into a large garbage can. We poured ether into the can with him. He was injected with 100% formalin when we returned to the building, then placed in a plastic (plexiglass) tube in the 5°C. cold room until he becomes hardened. Then I am going to put him in a glass tube in an extended condition. He is 54 inches long (snout to tip of rattle) and somewhat over 2 1/2 inches in diameter at his widest point. He was very docile throughout the entire operation. He never struck once, even when the noose was going over his head, and he didn't rattle at all until we had him noosed. The first time I approached him with the noose, in fact, he attempted to escape by heading for a hole under a larger rock. Even then he didn't strike or rattle.

Mayhew
1961

Crotalus ruber

6.

Mar. 13

2 mi. N.W. of Sunnymead, Riverside Co., Calif.

at 1445 I saw an adult (30"-36") stretched out in the sun beside a small shrub. It began to rattle as soon as it saw me (I saw him several seconds before it began to rattle). It was about 10 feet from me at the time. It began to crawl toward me, rattling all the time. It crawled under the rock I was standing on and continued to rattle until it was well back under the rock pile.

about 100 yards further up the hillside Walt Moberly saw 2 big ones at 1515. One was coiled out in the sun beside a large rock pile, the other one (equally big) was coiled in the shade about 10 feet away from the first. We estimated that each of them must be about 4 1/2 feet long. The one in the sun began to rattle vigorously and retreat beneath the large pile of boulders beside it. The other one never changed position or rattled at all. We counted 12 rattles on it. The length of the rattles on the nervous one appeared to be about the same, but it was vibrating the rattles so rapidly no count could be made. at this time, air temp. (30") was 27.5°C., (1cm) was 28.4°C., rock surface - 37.4°C.

Mayhew
1961

Crotalus ruber

7.

Mar. 14

UCR campus, Riverside Co., Calif.

This morning Mr. Chalmers, head of UCR maintenance crews called to see if there was some way to chase a rattler out of ag. Extension Building (Old Citrus Station Director's home). One was seen crawling into the building yesterday.



Crotalus
viridis

Crotalus
viridis

Mayhew
1958

Crotalus viridis

1.

Aug. 1

Mt. Baldy, Los Angeles Co., Calif.

This morning Frank Aubrey caught a young one that was lying coiled in a depression between some rocks in a stream bed at 4700 feet elevation. It was about .2 mile west of Icebox Canyon Resort. It was about 50 feet from the road. When I first saw it, it was coiled, sitting in partial shade. It was completely exposed from above. Frank walked back to the car (about $\frac{1}{4}$ mile) and drove it down to the spot which required about 10 minutes. The snake didn't make a move during the entire time. It didn't bother to rattle until Frank had the noose on it.

1959

May 9

2 mi. N. of Cedar Springs, San Bernardino Co., Calif.

This morning about 1040 an adult ♂ was seen stretched out beneath a log with its head at the edge of a small pool of water. The other end of the log was covered by a pile of brush. Upon our approach, the snake crawled back under the brush pile. However, it could be seen easily when one knelt down beside the pile. The snake didn't rattle at all, but simply remained coiled. Frank Aubrey went back to the car and obtained his slingshot. He was gone about 10



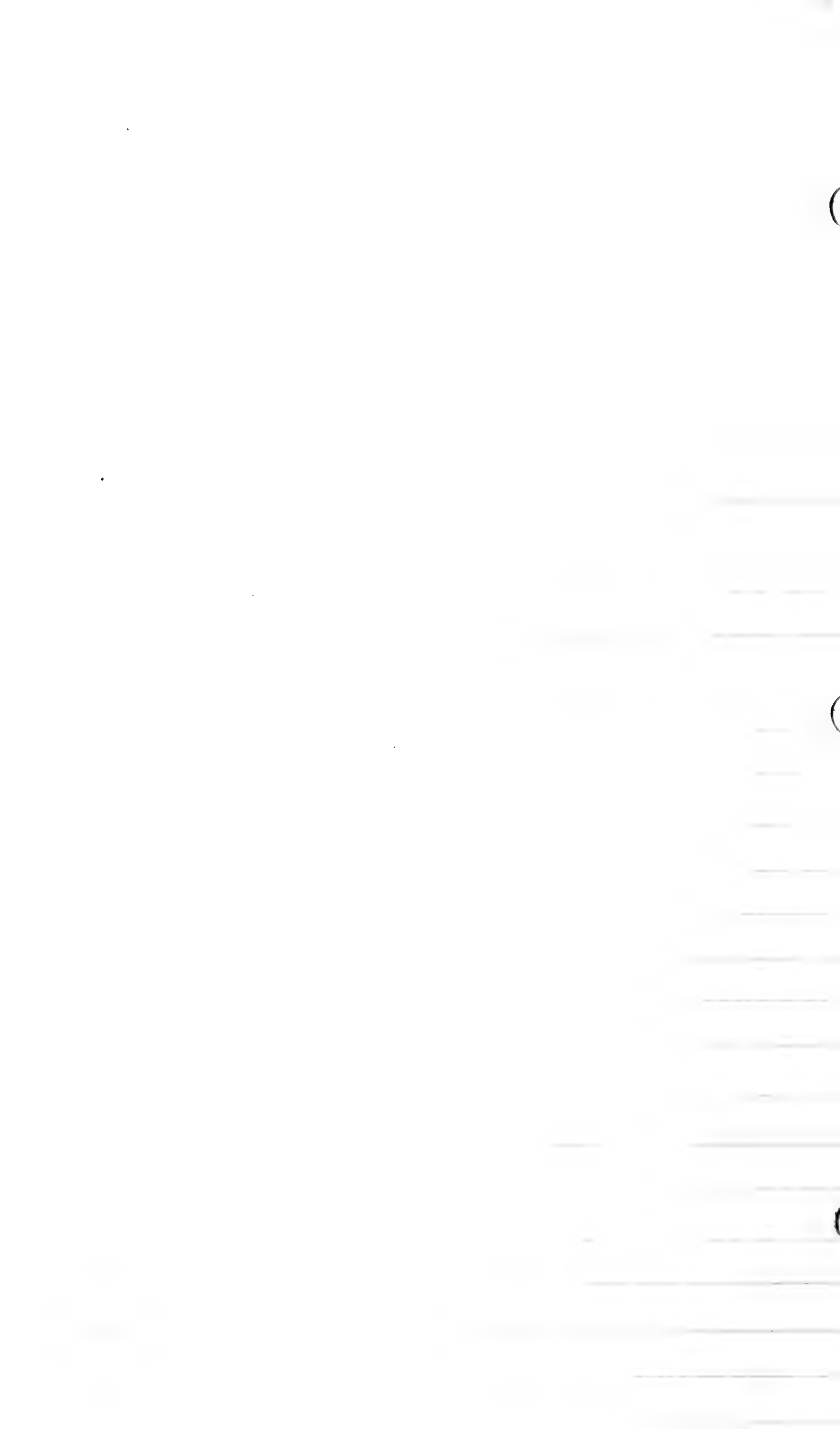
Mayhew
1959

Crotalus viridis

2.

May 9

2 mi. N. of Cedar Springs, San Bernardino Co., Calif.
minutes, during which time the Snake remained motionless. It never rattled until Frank hit it with a rock from his slingshot. Then it crawled out of its hiding place, but we were able to drop a large rock on its anterior end. Once we were sure it was dead, we measured it (50 1/2" long), removed the head and buried it, and removed the rattles (12). Frank removed the left testis & put it in Bouin's solution. We removed the posterior portion of the body to save the other testis & the vasa deferens.



Crotaphytus
collaris

Crotaphytus
collaris

Mayhew
1958

Crotaphytus collaris

1.

July 25

UCR campus, Riverside Co., Calif.

This morning the ♀ that was brought in from Long Beach, Calif. by Lore Ostroff was dead in the terrarium. It had regurgitated all its food for several days (ever since it was brought in last week). Frank Aubrey opened her and we measured the eggs she contained. The right ovary had 3 large ova and 3 very small ones; the left ovary had 4 large ova + 3 small ones. The large ova that could be measured (4 of them) were 12 mm. in diameter.

Aug. 2

This morning at 0920 Frank set 4 eggs that were laid during the night or early morning by the ♀ collected 8 mi. south of San Antonio, San Bernardino Co., Calif. on May 17, 1958. These eggs were placed in the Vapor-temp. at 90°F and 90% relative humidity. Their measurements were:

25.6 mm. X 14.3 mm.

27.4 " X 14.5 "

27.7 " X 14.6 "

25.2 " X 14.2 "

1959

April 19

Deep Canyon Des. Res. Station, Riverside Co., Calif.

This morning at 0842 a 1/2 grown ♀ was captured near the north-eastern corner of the station. At this time the surface temp. was 26.6°C., the air temp. (30") was 21.5°C. The area was fairly flat, but was covered with numerous

Mayhew
1959

Crotaphytus collaris

2.

April 19 Deep Canyon Des. Res. Station, Riverside Co., Calif.
Boulders — some almost as large as a man.

May 16 Stoddard Valley, San Bernardino Co., Calif.

We began searching over a rocky slope at 0810, but didn't find any animals until 0930. No others were seen until 1230, when we were able to find several. They did not seem to be as abundant as Sauromalus obesus even then, however. Each of them was first seen sitting on the top of a rock on the slope. The last one was caught while sitting on a rock beside the road in the Ord Mts. at 1530. None were seen after this time because we left their habitat at this time.

Crotaphytus
wislizeni

Crotaphytus
wislizeni

Mayhew
1958

Crotaphytus wislizeni

1.

May 3

8 mi. West of Lucerne Valley, San Bernardino Co., Calif.

This afternoon a ♂ & ♀ were captured while copulating. The ♂ had a tight grip on the skin on the back of the neck of the ♀, and refused to let go, even when handled. The ♀ had bright red spots over the back.

May 27

The ♀ laid some eggs in one corner of the southern-most outdoor cage.

She dug a hole beneath a corner of a cement block and deposited them.

Aug. 24

3 mi. S. of Ocotillo Wells, San Diego Co., Calif.

Several specimens were seen and a few captured this morning.

Sept. 18

Stoddard Valley, San Bernardino Co., Calif.

One specimen was captured by the side of the road today.

Sept. 19

~~at 1900 a juv~~ ^{5 mi. E. of Glamis, Imperial Co., Calif.}

At 1900 a juv was collected on the road where it passed through the sand dunes. At the time, the air temp. was 32.2°C ., the soil surface temp. was 31°C ., & the road surface temp. was 35.5°C .

Sept. 20

3 mi. S. of Ocotillo Wells, San Diego Co., Calif.

An immature animal was captured while it was resting in a burrow (in the shade) with its head exposed. Air temp. 2 inches above the ground was 43.5°C ., the soil surface temp. (in sun) was 54°C .

Mayhew
1958

Crotaphytus wislizeni

2.

Oct. 18

10 mi. E. of Phelan, San Bernardino Co., Calif.

One immature animal was seen in some dense vegetation this morning. Although we could see it quite plainly, we were unable to capture it.

1959

April 14

1 mi. W. of Phelan, San Bernardino Co., Calif.

This afternoon we saw one adult. It finally disappeared into a dense shrub before we could capture it.

Apr. 24

Dale Dry Lake, 22 mi. E. of 29 Palms, San Berdo Co., Calif.

This morning we captured 3 ♂ and 2 ♀ at the southern edge of this dry lake. The area is quite sandy, and the primary perennial vegetation is Larrea divaricata. These are the first animals of this species seen in that area by us.

Apr. 25

5 mi. W. of Glamis, Imperial Co., Calif.

Two adult ♀ were captured in the sand dunes today. They were the only members of this species seen today, and are the first ones we have seen in this area during the entire time we have been collecting at this location (since last August).

May 23

7 mi. W. of Glamis, Imperial Co., Calif.

Two adults were captured this afternoon (♂), one of which had a Callisaurus draconoides in its mouth, which it had just



Mayhew
1959

Crotaphytus wislizeni

3.

May 23

7 mi. W. of Glamis, Imperial Co., Calif.
captured. The Callisaurus was 67 mm.
long (snout to vent).

Aug. 31

6 mi. N.W. of 1000 Palms, Riverside Co., Calif.
At 1620 an adult was seen sitting
on a rock in the sun, facing into
a 17-25 mph. westerly wind. At the time
the air temp (30") was 41°C., soil surface
temp. was 45°C., relative humidity was 18%,
no clouds.

1960

April 21

33 mi. E. of 29 Palms, San Bernardino Co., Calif.

An adult ♀ with bright orange spots
on her sides was found dead on the
road, having been run over by an auto.
She had been dead quite a while, but
we opened her up. She contained 3 eggs
in each oviduct. There were ova approximately
5 mm. in diameter in each ovary. She had
been dead too long to salvage.

1961

Oct. 12

Dale Dry Lake, San Bernardino Co., Calif.

This afternoon Walt Moberly tracked
an animal for about 75 yards. at
that point signs of a terrific struggle
between the tracked animal and a Uma
scoparia could be seen on the sand.
The track of something being dragged
showed from that spot to a bush
(Larrea divaricata) about 15 feet away.



A. Aubrey
1960

Crotaphytus wislizeni

3a

July 16 - 25 mi E. of 29 Palms, San Bernardino Co., Calif.

A hatchling was captured this morning in a Franseria dumosa

S.-V. length was 50 mm. An adult ♀ taken today showed no breeding colors.

July 17 - 1 mi W. of Glamis, Imperial Co., Calif.

A hatchling was seen sitting in the center of the road this morning. It measured 50 mm

S.-V. An adult ♀ was also taken this A.M.. She still showed breeding colors.

Mayhew
1961

Crotaphytus wislizeni

4.

Oct. 12

Dale Dry Lake, San Bernardino Co., Calif.

There he found a very large ♀ of this species (117 mm. S-V length) in the process of eating ~~and~~ an adult ♂ Uma scoparia. The Uma was going down head first, and was about 1/2 way down when we found the animals. The ♀ C. wislizeni spit out the Uma and ran down a burrow at our approach. However, Walt was able to dig it out of the burrow. The adult Uma was dead, but it had not started to be digested yet. Therefore, we were able to recover it for our reproductive study. It measured 103 mm. S-V length. There were no visible marks of violence on its skin.

1962

May 13

Glamis area, Imperial Co., Calif.

an adult ♂ was found DOR 9 mi. W. of Glamis. It had been dead for some time, so the testes were in bad shape. However, the animal was (4) and (8) and (22) on our code. another DOR ♂ (105 mm S-V) also was (4) and (8).

Dec. 3

UCR, Riverside Co., Calif.

The 3 young animals I am keeping in captivity this winter for growth

Mayhew
1962

Crotaphytus wislizeni

5.

Dec. 3

UCR, Riverside Co., Calif.

data have practically stopped eating. Their appetites became much reduced about a month ago, but now they hardly ever eat anything. Consequently, I am turning off the light in that cage today.

Jan. 26

I turned the light back on in the cage today, since both animals are beginning to move around a bit again. The ♂ ate one mealworm pupa when several were offered with some mealworm larval. The ♀ is sitting at the hot end of the cage, but pays no attention to food yet. The ♂ is molting extensively now, & has been for about a week.

Jan. 28

The ♂ has become quite active again. He ate a couple of mealworms this morning. The ♀ poked at a mealworm or two, but was not seen eating any of them.

Feb. 19

a young ♂ (70 mm S-V) ^{nearly} killed a young Sceloporus magister ♂ (59 mm S-V) while they were in the same cage to receive their weekly ultraviolet light treatment. The Sceloporus was being held by the front of the head when I removed the jaws of the Crotaphytus. The Sceloporus appeared dead for some time, but finally became active again. However, I don't think it would have survived long without help.

Mayhew
1963

Crotaphytus wislizeni

6.

May 3

Hesperia, San Bernardino Co. Calif.

An immature ♂, 68 mm (S-V) was captured in Joshua tree woodland today. It was kept by Valerie Ernst.

May 25

9 mi. W. of Glamis, Imperial Co., Calif.

at 1020 I saw the largest lizard of this species I have ever seen. It was in the sun at the side of the road, and had the head of an adult ♀ (65 mm, S-V) Phrynosoma m'calli in its mouth. The horned lizard was dead already, but the Crotaphytus apparently had not attempted to swallow it yet (except for the head). I could not get a noose over the body of P. m'calli and then over the Crotaphytus head, so I decided to attempt to catch the Crotaphytus by hand. My hand was within a foot of the lizard before it dropped the P. m'calli & bolted across the road, to disappear in some distant creosote bushes. I don't know how it disengaged from the head spines of the P. m'calli so that it could disgorge the head from its mouth. I was reasonably certain, from observations I made while trying to decide how to attempt to catch the lizard, that these spines would cause difficulty, if the



Mayhew
1963

Crotaphytus wislizeni

7.

May 25

9 mi. W. of Glamis, Imperial Co., Calif.

Crotaphytus decided to remove the horned lizard from its mouth. However, the leopard lizard had no difficulty whatever in ridding itself of the horned lizard.

1969

June 12

UCR, Riverside Co., Calif.

a ♀, captured 8 miles south of Barstow, San Bernardino Co., Calif. on May 24, 1969, laid six eggs in the laboratory today. They were so desiccated by the time they were discovered that no measurements could be obtained from them.

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Dipsosaurus
dorsalis

*Dipsosaurus
dorsalis*

Mayhew
1957

Dipsosaurus dorsalis

L.

Mar. 30

Salton Sea, San Diego Co., Calif.

A young animal was caught on the road tonight near Borrego, on the west side of Salton Sea.

1958

Aug. 5

Salton Sea area, San Diego Co., Calif.

An adult ♂ was seen sitting in the road at 1245 about $\frac{1}{2}$ mile west of Ocotillo Wells (Burro Bend). It ran under the tires and was crushed. It contained freshly eaten leaves that appeared to be leaves of ocotillo (leaves had recently appeared because of summer rains). The soil surface temperature at the edge of the road at this time was 52.5°C . (126°F .) and the road surface temp. was 45°C . (113°F .) One more animal was seen running across the road (highway 78) 4 miles farther west at about 1300.

Aug. 24

A large number of adults and some young were found on the road from Ocotillo Wells to Split Mountain today, & 1 young was found last night (0035) on the road.

Aug. 26

3 mi. W. of 1000 Palms, Riverside Co., Calif.

at 0940 on Ramon Road 2 adults were seen running across the road onto the sand. Road temp. was 52°C ., & soil surface temp. was 55°C .

Mayhew
1958

Dipsosaurus dorsalis

2.

Sept. 2, ■

UCR campus, Riverside Co., Calif.

This afternoon a ♀ laid 5 eggs in the NW corner of #3 lizard cage. Their measurements

24 mm x 18.2 mm.

23.8 " x 16.8 "

22.3 " x 15.9 "

23.3 " x 15.4 "

26.2 " x 20.0 "

Their average measurements were:
23.9 mm. x 17.2 mm. She dug a hole about 8 inches deep in which to lay her eggs.

Sept. 19

11 mi. E. of Glamis, Imperial Co., Calif.

One young animal was captured in a dry wash this afternoon. The area on both sides of the wash are quite barren, but the wash itself contains a rather lush vegetation. This animal was captured when the air temp. was 37.8°C. and the soil temp. was 44.5°C. (surface).

Sept. 20

3 mi. S. of Ocotillo Wells, San Diego Co., Calif.

One adult was caught at 1050 while it was sitting in the shade of a Larrea divaricata. The air temp. waist high was 39.2°C., air temp. 2 inches above the ground was 43.5°C., and the soil surface temp. was 54°C. This animal was captured without any chase. The cloacal temp., taken

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Mayhew
1958

Dipsosaurus dorsalis

3.

Sept. 20

3 mi. S. of Ocotillo Wells, San Diego Co., Calif.
immediately upon capture, was 43°C .
The soil surface temp. in the shade
at the point of capture was 42.6°C .

1959

Mar. 6

5 mi. N.W. of 1000 Palms, Riverside Co., Calif.

A young animal was seen at 1215
today. It escaped into dense brush
before we could catch it.

April 9

Echo Canyon, Death Valley Nat'l. Monument, Calif.

At 1150 today near the old mining
town of Inyo one adult and 3 young
animals were seen. They were seen
beneath creosote bushes that were
growing in the sandy mine tailings.
(This canyon is about $1\frac{1}{2}$ -2 miles
N.E. of Furnace Creek Inn off the
road to Surprise Pass.) An air temp.
reading of 81°F . was obtained 1 cm.
above the surface where the adult
had been seen. There was no wind,
and the sun shone brightly.

April 10

32 mi. N. of Baker, San Bernardino Co., Calif.

This afternoon about 1250 an adult
ran across Highway 127 in front of
the car. I stopped and Lloyd Tervis &
I tried to find it. We eventually
succeeded in capturing one adult ♀
and one almost adult ♀ as well as one
adult ♂. The area was a flat, sandy
plain with scattered creosote bushes that



Mayhew
1959

Dipsosaurus dorsalis

4.

- April 10 32 mi. N. of Baker, San Bernardino Co., Calif.
appeared to be suffering from the lack of moisture. These bushes were quite widely spaced, and there was practically nothing growing between.
- Apr. 24 22 mi. E. of 29 Palms, San Bernardino Co., Calif.
This morning, between 1035 and 1205, we captured 6 animals — 2 adults (♂) and 4 immatures. These were captured at the southern edge of Dale Dry Lake in the sandy portion of creosote bush scrub. They were found in the same locations that Uma scoparia were collected earlier in the day (some Uma were still active at this time). I'm sure that Dipsosaurus were active past 1205, but we had to leave the area at that time.
- Apr. 29 5 mi. N.W. of 1000 Palms, Riverside Co., Calif.
We saw the first one at 0945 when the air temp. (30") was 39.4°C., air temp. (1cm) was 40.8°C., and soil surface temp. was 51.0°C. A total of 9 were captured — (3 adult ♂, 2 adult ♀, 3 immature [sex?]) and 1 juvenile [very small]. The last one was captured at 1130 when air temps. were: (30") 38.6°C., (1cm) 41.0°C. and soil surface temp. was 56.0°C. This animal was up in the branches of a creosote bush when first located. After this time (up to



Mayhew
1959

Dipsosaurus dorsalis

5.

Apr. 29

5 mi. N.W. of 1000 Palms, Riverside Co., Calif.

1215) no other animals were seen. Apparently it was too hot above ground even for this species.

Apr. 30

An adult (believed to be ♀) was caught at 0730 on the lee side of a creosote bush, sitting on the sand sunning itself. At this time the air temp (1 cm) was 24.2°C ., the soil surface temp. was 32.6°C .. The wind was blowing 25-30 mph. at the time.

June 10

Dale Dry Lake, San Bernardino Co., Calif.

The first Dipsosaurus seen this morning at 0955, when the air temp. (30") was 31.4°C . and soil temp. was 49.0°C .

June 11

7 mi. W. of Glamis, Imperial Co., Calif.

Animals were seen above ground at 0800 with air temp (30") at 32.2°C ., at 1 cm. 34.0°C ., & soil temp. 43.5°C .. The last one seen at this location today was at 1240 when an adult ♂ was caught while resting in the shade of a creosote bush. At this time air temp. (30") was 38.5°C ., at 1 cm. it was 41.8°C ., & soil temp. was 58.0°C .. No other reptiles of any kind were seen at this time.

June 12

8 mi. N.W. of 1000 Palms, Riverside Co., Calif.

As we were returning to UCR over the old highway at about 1030, two Dipsosaurus ran across the road in front of



Mayhew
1959

Dipsosaurus dorsalis

6.

June 12

8 mi. N.W. of 1000 Palms, Riverside Co., Calif.
the car. We stopped to try to catch them. During this stop we saw 6 animals either cross the road or come to rest on the pavement. We captured 5 animals (only 2 of the ones seen on the road), most of which were sitting up in the creosote bushes (up to 2 feet above the ground). By 1045 no animals were to be found anywhere even though we looked diligently for them. By this time the air temp (30") was 40.5°C. , at 1 cm. it was 44.5°C. , the soil surface temp. was 62.0°C. , & the road temp. was 62.5°C. Apparently we came by the area just as these animals were about ready to go back underground. These animals appeared to be very numerous at this location (near junction of power line road & old highway), even though the vegetation appears to need moisture badly.

1961

June 16

Dale Dry Lake, San Bernardino Co., Calif.

This morning conditions were such that these animals could be tracked rather easily, so several were caught by tracking them to their hiding places. Since wind had destroyed the tracks made before this morning, individual animals could be followed for considerable distances. Several



Mayhew
1961

Dipsosaurus dorsalis

7.

June 16

plants

Dale Dry Lake, San Bernardino Co., Calif.
animals were found to have travelled considerable distances during the morning, but I measured these distances in only 2 cases. The tracks of one animal were found where it had emerged from a hole at least 30 feet from the nearest Larrea divaricata, which are widely spaced at this particular spot. The animal was finally captured after I tracked it 314 yards from the hole. The route taken by the animal had passed through 6 Larrea divaricata. This point was about 200 yards in a straight line from the hole. The tracks of the second animal were obliterated by other tracks at each end. However, where the tracks could be followed, they covered 160 yards, through 4 Larrea divaricata.

Sept. 22

UCR, Riverside Co., Calif.

Today my collection of young animals was divided into 2 groups, with animals of approximately the same size being placed in each group. 11 animals were placed in cage # 3, which will receive 11 hours of light per day, as in the past. These animals are Nos. 3, 4, 5, 7, 9, 12, 17, 19, 23, 24, and 27. These are the control animals. Cage # 5



Mayhew
1961

Dipsosaurus dorsalis

8.

Sept. 22

UCR, Riverside Co., Calif.

contains 12 animals, which will be exposed to 24 hours of light per day, beginning today. These are animals numbered 2, 8, 10, 11, 13, 14, 15, 16, 20, 25, 26, and 28. Both groups will be weighed & measured each week to determine the effects of the extra light on their growth rates.

Oct. 13

Today 7 animals (Nos. 30, 31, 32, 33, 34, 35, & 36) were placed in a 15 gallon aquarium in the cold room (15°C) to act as controls for the experiment mentioned above. These animals were captured shortly before being placed in the cold room. It is hoped they will hibernate just as they would be doing shortly in the wild.

Oct. 26

Walt Moberly saw 2 of his medium-sized animals copulate this morning. They have been exposed to approximately 9 hours of light per day since they were brought to the lab, in late August or early September (he didn't catch them to check their toe-clip number). They are in a cage with 23 other Dipsosaurus.

Oct. 28

Walt saw 2 of his large animals copulating this afternoon. He caught them & learned that they were #29 (♂, 135 mm. S-V length) & #6 (♂, 128 mm. S-V length).



Mayhew
1961

Dipsosaurus dorsalis

9.

Oct. 28

UCR, Riverside Co., Calif.

#29 was brought to the lab. on Aug. 20, 1961, and #6 was caught 19 July, 1961.

#29 mounted #6.

Nov. 10

This morning I brought Laurie Beth's pet lizard from home to keep over the winter with my research animals. It had begun to hibernate in a box in our garage about a week earlier. I placed it in the cage of Dipsosaurus that are receiving 11 hours of light per day. In spite of soil surface temps. being in the low 30's (°C), it remained completely dormant all day. Most of the time it remained lying against the substrate with its eyes closed. If it were picked up, it opened its eyes and wiggled slightly. However, as soon as it was released, it closed its eyes again & behaved as before. It was still in this condition when I left at 5 P.M.

Nov. 13

Unfortunately, I was unable to check on this lizard over the week-end, so I don't know just when it became active again. However, by this morning it was as active as any lizard in the cage. It is quite aggressive in obtaining mealworms at feeding time. It has a very good appetite now. If I hadn't distinctly marked it on the back when placed in the cage, I couldn't tell which one it is.



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Mayhew
1962

Dipsosaurus dorsalis

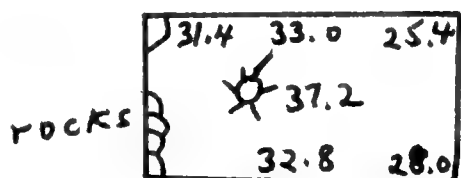
10.

Feb. 9

UCR, Riverside Co., Calif.

animals in both the 11-hour and 24-hour cages are regaining their appetites now. The ones in the 24-hr. cage still sleep during most of the day & are active at night. However, their cycle has shifted enough so that they are beginning to get active late in the afternoon. They eat more than in the morning. Neither group eats as much as last fall, but both groups eat considerably more than they have been through the winter. However, those in the 11 hour cage eat noticeably more than the lizards in the 24 hour cage.

Feb. 19



The cage in which Lorei Ostroff Schumacher keeps her lizard has the temperatures (soil) shown above. This animal has been doing very well under these temperature conditions and 24 hours of light per day. It has grown 6 mm. in length and 10.2 grams in weight during the past 6 weeks.

Feb. 22

animals in the 11 hour cage eat almost as much as they did last fall. animals in the 24 hour cage, although their appetites have increased considerably, still don't eat as much.



Mayhew
1962

Dipsosaurus dorsalis

11.

Mar. 28

Palm Springs, Riverside Co., Calif.

Today Walt Morely & I saw, and captured 11 animals. Based on the tracks we saw, they hadn't been out of hibernation very long. Lloyd Tewis said he saw 2 of them Sunday, Bob Worley said he saw the first one Monday, & Sam Cowling hadn't seen any yet. Sunday was the first really warm day this spring, so it seems obvious these animals are just emerging from hibernation. All the animals looked in fine shape - even the juveniles. The first animal was seen at 1025, the last one at 1335. We quit looking at 1355.

Don Hunsaker (San Diego State College) tells me he caught an adult ♀ on March 18, 20 miles west of Calexico. This is the earliest record I know about for this year.

April 26

UCR, Riverside Co., Calif.

This afternoon I dissected our April samples from Dale Dry Lake & from Palm Springs. These animals were captured one day apart. Nevertheless, not a single animal from Dale was even close to breeding condition, either ♂ or ♀, whereas all ♂♂



Mayhew
1962

Dipsosaurus dorsalis

12.

April 26

UCR, Riverside Co., Calif.

from Palm Springs (adult) already contained motile sperm at the terminal ends of the vas deferens + some of the ♀♀ had greatly enlarged eggs in the ovaries. The testes of the Dale animals have not even begun to enlarge yet, + no eggs in Dale ♀♀ have begun to accumulate yolk.

May 6

Dale Dry Lake, San Bernardino Co., Calif.

Five juvenile animals were caught, measured + released this morning (I had no means for toe-clipping them):

- 1) 55 mm. S-V length
- 2) 63 " " "
- 3) 63 " " "
- 4) 75 " " "
- 5) 77 " " "
- 6) 87 " " " (DOA at UCR)
- 7) 73 " " " (DOA at UCR)

May 11

UCR, Riverside Co., Calif.

12 young animals were weighed, measured, toe-clipped + released in a lab. cage that will receive 24 hours of light per day, but very little heat. The light at present is coming from one 100-watt incandescent bulb at one end of the cage, and one 100-watt bulb at the other end. Additional incandescent bulbs



Mayhew
1962

Dipsosaurus dorsalis

13.

May 11

UCR, Riverside Co., Calif.

will be added if it is deemed necessary.

Four young animals, captured at Dale Dry Lake May 6th were weighed & measured:

- 1) 6.1 gms ; 61 mm. S-V.
- 2) 5.5 " ; 61 " "
- 3) 6.3 " ; 61 " "
- 4) 5.3 " ; 60 " "

May 24

Palm Springs, Riverside Co., Calif.

Today I released 26 animals just east of the store at the corner of Vista Chino and Sunrise. These lizards have been in captivity since last fall. They were some of the animals used by Walt Moberly for his senior thesis. They were:

<u>No.</u>	<u>S-V length</u>	<u>Sex</u>	<u>No.</u>	<u>S-V length</u>	<u>Sex</u>
3	126	♀	67	114	♀
4	86	♂	83	95	♂
8	122	♀	84	93	♀
18	116	♀	85	88	♀
19	95	♀	89	77	♂
27	97	♂	95	100	♀
29	133	♂	96+5	89	♂
38	99	♀	98	86	♂
39	81	♂	99	106	♂
43	102	♂	100	99	♂
46	90	♂	102	88	♀
47	79	♂	105	82	♂
57	108	♀	114	105	♂



Mayhew
1962

Dipsosaurus dorsalis

14.

June 1

UCR, Riverside Co., Calif.

Soil surface temps. were measured in each of the experimental cages today. The temperature levels are holding within the ranges desired for each of the experiments. The temperatures (soil) that were recorded are as follows:

11 hour cage at 0800 (no lights for 13 hours)

32.4		30.2		33.0
	30.5			
32.0	29.5	31.0	31.0	35.8
	30.8		34.4	
32.0		30.5		36.0
(Front)				

11 hour cage at 1600 (lights since 0800)

38.6	46.0	39.6	41.0	39.2
39.0	48.0	41.0	59.5	41.0
38.0	47.8	44.5	56.0	46.0
(Front)				

24 hour cage (with heat bulbs)

36.0		39.5		36.0
	40.0		42.0	
		40.0	40.0	
	38.2		39.6	
36.0		38.2		36.0
(Front)				

24 hour cage (with no heat bulbs)

31.5	32.8	32.6	32.8	
32.0	33.0	33.0	33.0	34.0
32.0	32.0	33.5	33.2	
(Front)				

Mayhew
1962

Dipsosaurus dorsalis

15.

June 1

UCR, Riverside Co., Calif.

One 250-watt infra-red heat lamp is at each end of the 11-hour cage and the 24-hour cage that is heated. One 100-watt incandescent light bulb is at each end of the 24-hour cage that is not being heated. The range of temperatures in each cage is:

cage #3 { 11-hour cage (0700) - 30.2° to 36.0°C.
11-hour cage (1600) - 38.0° to 59.5°C.

cage #5 24-hour (heated cage) - 36.0° to 42.0°C.

cage #4 24-hour (non-heated cage) - 31.5° to 34.0°C.

Cloacal temperatures of animals held under these conditions were as follows:

<u>Time</u>	<u>Cage #</u>	<u>animal #</u>	<u>Cloacal Temp.(°C)</u>
1330	3	12 (ill)	39.5
	3	45	39.4
	3	32	39.6
	3	3	40.0
	3	5	39.0
	3	6	40.0
	5	15	35.4
	5	41	37.4
	5	8	36.4
	5	16	37.0
	5	44	35.5
	5	31	38.5
	4	53	34.2
	4	56	34.0



Mayhew
1962

Dipsosaurus dorsalis

16.

June 1

UCR, Riverside Co., Calif.

<u>Time</u>	<u>Cage #</u>	<u>Animal #</u>	<u>Cloacal Temp. (°C)</u>
-------------	---------------	-----------------	---------------------------

1330	4	51	34.0
	4	55	34.0
	4	46	34.2
	4	54	33.6

June 7

0715	3	38	34.8
(no lights for approx. 13 hours prev.)	3	6	34.6
	3	5	28.6
(lights on approx. 5 min. now)	3	45	33.5
	3	12 (ill)	32.8
	3	23	31.0
0720	5	44	35.2
	5	16	37.4
	5	8	36.6
	5	43	35.6
	5	41	37.6
	5	31	37.4
0730	4	48+9	34.2
	4	47	34.4
	4	54	34.4
	4	51	33.4
	4	56	33.8
	4	46	33.8
1450	3	37	41.0
	3	24	39.0
	3	45	40.2
	3	32	38.6
	3	17	39.4
	3	12 (ill)	38.0
	3	6	40.0

Mayhew
1962

Dipsosaurus dorsalis

17.

June 7

UCR, Riverside Co., Calif.

<u>Time</u>	<u>cage #</u>	<u>animal #</u>	<u>Cloacal Temp. (°C)</u>
1500	5	42	39.2
	5	40	35.5
	5	41	35.2
	5	16	38.0
	5	15	35.6
	5	8	35.4
	4	56	33.0
	4	55	34.2
	4	48	34.0
	4	51	33.0
	4	47	33.6
	4	46	33.2

June 8

0710	3	32	29.2
(no lights since 1800 yesterday)	3	3	28.5
	3	45	29.5
	3	6	27.0
	3	5	27.6
	3	24	27.5
1410	5	15	38.0
	5	43	36.6
	5	41	38.6
	5	16	37.0
	5	44	37.8
	4	57	33.2
	4	51	33.0
	4	48	33.2
	4	55	32.8
	4	47	33.5

Mayhew
1962

Dipsosaurus dorsalis

18.

June 8

UCKR, Riverside Co., Calif.

air temperatures 1 centimeter above the
soil surface in each of the cages are:

11 hour cage (0700)

26.2		25.2		26.2
	25.4			
26.0		25.2	25.8	26.0
	25.6		25.8	
25.8		25.2		26.0

11 hour cage (1600)

36.0		35.8		32.0
	36.2			
36.0		35.8	36.2	36.8
	38.8		39.0	
36.5		36.0		37.6

24 hour cage (heat)

34.2				35.0
	34.8		34.6	
34.2		34.0		34.6
	35.0		35.2	
34.2				35.0

24 hour cage (no heat)

31.0				31.8
	31.5		31.8	
31.0		31.5		31.8
	31.4		31.5	
31.0				32.0



.



Mayhew
1962

Dipsosaurus dorsalis

19.

June 8

UCR, Riverside Co., Calif.

<u>Time</u>	<u>Cage #</u>	<u>animal #</u>	<u>cloacal Temp. (°C)</u>
1550	3	37	38.8
	3	12 (ill)	41.6
	3	32	37.5
	3	24	39.0
	3	34	41.2
	3	5	40.0

Temperatures measured in each cage
to date are: cage #3 - 31 temps.

.. #4 - 23 ..

.. #5 - 23 ..

Total - 77 ..

June 20

Walt Moberly measured S-V lengths on
his animals before he placed them in
the outdoor cages to hibernate last
fall. He measured them again when
they emerged this spring. The
measurements for the young animals
whose size corresponded with my
experimental animals were as follows:

<u>animal #</u>	<u>Date</u>	<u>S-V length (mm)</u>	<u>Date</u>	<u>S-V length</u>
19	8/23/61	85	10/11/61	91
20	8/23/61	82	2/10/62	82
21				
60	8/23/61	55	2/22/62	55
71	8/23/61	71	2/22/62	71
85	9/10/61	88	4/5/62	88
86	9/10/61	83	4/25/62	83
88	9/10/61	73	4/25/62	73

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Mayhew
1962

Dipsosaurus dorsalis

20.

June 20

UCR, Riverside Co., Calif.

<u>animal #</u>	<u>Date</u>	<u>S-V length (mm)</u>	<u>Date</u>	<u>S-V length</u>
103	9/19/61	77	4/19/62	77
105	9/19/61	76	4/25/62	76
119	9/19/61	74	4/5/62	74
120	9/19/61	66	4/5/62	67
122	9/19/61	74	4/5/62	74

Weights of the same animals were:

<u>animal #</u>	<u>Date</u>	<u>Weight (gms.)</u>	<u>Date</u>	<u>Weight</u>
20	8/23/61	20.2	2/10/62	23.5
60	8/23/61	4.5	2/22/62	5.4
71	8/23/61	8.0	2/22/62	8.2
85	9/10/61	22.3	4/5/62	25.1
86	9/10/61	16.2	4/25/62	15.7
88	9/10/61	12.4	4/25/62	8.8
103	9/19/61	23.8	4/19/62	20.0
105	9/19/61	25.7	4/25/62	22.5
119	9/19/61	20.6	4/5/62	22.9
120	9/19/61	12.3	4/5/62	12.8
122	9/19/61	18.8	4/5/62	17.3

Mean length for the 11 animals above was 74 mm. at the start and finish of the winter period. Mean weight for the same animals for the same period was: 1961 - 16.8 gms; 1962 - 16.5 gms.

June 21

Palm Springs, Riverside Co., Calif.

Males caught at this location today appeared to be nearing the end of their breeding season for this year.

Mayhew
1962

Dipsosaurus dorsalis

21.

June 21

Palm Springs, Riverside Co., Calif.

The epididymis of nearly all males appeared to contain few sperm, even though the terminal end of the vas deferens was still quite milky. A microscopic examination of the material in the terminal of the vas deferens, however, revealed the presence of lots of sperm; but relatively few of them were motile. The appearance of these ducts was in contrast with the same ducts in Uma inornata collected at the same time. The epididymis of Uma was often packed with sperm, but the vas deferens appeared to be empty.

Oct. 29

UCR, Riverside Co., Calif.

after weighing and measuring all the lizards in the light experiment in my lab., I placed the 23 healthy animals in one of the outdoor cages (13 from 24-hour, no heat; 2 from 24-hour, heat; and 8 from 11-hour light regimes). The remaining 7 blind animals (2 from 24-hour, no heat; 3 from 24-hour, heat; and 2 from 11-hour) were killed. The records for the retained animals were placed together under the heading of animals in outdoor cage #2.

Mayhew
1962

Dipsosaurus dorsalis

22.

Nov. 13

UCR, Riverside Co., Calif.

Today I measured the illumination in each of the cages that were involved with the photoperiodism experiment. The range of illumination in cage #3 (11 hours of light) was from 51 to 660 foot-candles. The range in cage #4 (24 hours, incandescent light) was 38 to 70. The range in cage #5 (24 hours, infra-red light) was 14 to 140 foot-candles.

Dec. 19

Today I dug up all the animals (23) that I had placed in the outdoor cage on Oct. 29, 1962. In addition, I found one other animal that Walt Moberly apparently overlooked. Temperatures were measured for each animal as it was uncovered. Six of the animals were on the ground surface already. These animals were then divided into 5 groups for an experiment Loree Ostroff + I are going to conduct concerning blindness in lizards. Several animals have developed a condition in the past in which the eyes become coated with a mucous-like secretion, + the eyes eventually become desiccated. The animals keep them closed all the time under these conditions; they can't eat, so they eventually die. Loree

Mayhew
1962

Dipsosaurus dorsalis

23.

Dec. 19

UCR, Riverside Co., Calif.

has been able to isolate 3 kinds of bacteria from the eyes of one of the diseased lizards (Uta stansburiana). She has found that Tetracycline and Oxytetracycline inhibit growths of these bacteria on agar plates. So, we are going to attempt to find out if one of these bacteria is, in fact, producing this disease, and if one of these antibiotics will really cure it. These lizards have been separated as follows:

Cage #1 - Lizards infected with Streptococcus sp.:

Nos. 33, 37, 39, 65

Cage #2 - Lizards infected with Staphylococcus aureus:

8-9-10, 32, 48, 55, 60, 63.

Cage #3 - Lizards infected with Micrococcus sp.:

17, 46, 54, 57, 59.

Cage #4 - Controls

19, 53, 56, 61, 62.

Three of the lizards (#34, 38, 41) had the disease when they were dug up, so they were isolated and are being treated for the disease. The left eye of each of these is being treated with Oxytetracycline (Terramycin) and the right eyes are being treated with Tetracycline (Achromycin). Aureomycin has not proved to be satisfactory in treating this disease. Lizard #35 was to have

7

7

7

Mayhew
1962

Dipsosaurus dorsalis

24.

Dec. 19

UCR, Riverside Co., Calif.

been in cage 1 with the strep. infection. However, Loree forgot, and added the Staphylococcus infection to one eye (right?) in addition. Therefore this animal was placed in the cage that contains the lizards being treated. These lizards are being held in glass terraria 24" x 12" x 12", the floors of which are covered with approximately one inch of freshly autoclaved sand. The terraria were scrubbed down with Lysol previously. The animals will be exposed to room temperatures until Friday morning (Dec 21), at which time incandescent lights will be turned on to warm the animals. These lights will be on for approximately 9 hours per day, 5 days a week. The infested animals received one dose of the bacteria each today, and that is all that is planned for them. The treated animals will be treated approximately every 2 hours between 8 AM & 5 PM, Monday through Friday.

The day was warm & sunny when the lizards were captured in the outdoor cage. The air temp. (1 meter) was 21.6°C, soil surface - 31.5°C., and soil temp. 11 inches beneath the surface (where a Uma inornata was uncovered) was 14.8°C.

Mayhew
1962

Dipsosaurus dorsalis

25.

Dec. 19

UCR, Riverside Co., Calif.

Capture data were as follows:

<u>Animal No.</u>	<u>Cloacal Temp.</u>	<u>Remarks</u>
41	33.0°C.	on surface, in sun
48	31.0	" " , " "
32	29.0	" " , 1/2 in sun
38	31.0	" " , in sun
34	30.2	" " , in shade
35	21.2	under rock, 1/2 buried in sand
33	15.2	under dish
61	21.0	in burrow, 6" beneath surface
37	14.8	under rock
8, 9, 10	14.0	in burrow, 2" beneath surface
19	14.0	" " , 1" " "
60	14.2	" " , 2" " "
62	17.5	" " , 3" " "
65	15.5	" " , 2" " "
63	34.2	on surface
55	18.0	in burrow, 8" beneath surface
57	15.2	" " , 5" " "
56	18.5	" " , 3 1/2" " "
54	16.6	" " , 4" " "
17	15.8	" " , 4" " "
59	19.4	" " , 3" " "
39	15.4	" " , 4" " "
53	15.2	" " , 4" " "
46	15.4	" " , 5" " "

One burrow (lizard 57) was shaped like this: R. It was 21" long, and ranged from 5" beneath the surface where the lizard

Mayhew
1962

Dipsosaurus dorsalis

26.

Dec. 19

UCR, Riverside Co., Calif.

was first seen, to 3" at the head of the
bow, to 7" at the terminal end. Most of
the animals were fairly near the spot
where the surface opening would be for
their particular burrow. Even though
their body temperatures were in the
neighborhood of 15°C , these animals
were able to move farther down their
burrow systems when they were partly
exposed by my digging. Most of the
burrows were just straight tubes,
descending gradually. None of the burrows
had an opening exposed on the surface.
One could not tell that animals were
underground in this cage without digging.

1963

Apr. 20

Glamis area, Imperial Co., Calif.

The weather was so cold and windy
we saw only 3 animals, all of which
were young. The measurements of the 2
we caught & released were:

♂ 91 mm (S-V)
61 mm (S-V)

May 5

Dale Dry Lake, San Bernardino Co., Calif.

Measurements were obtained from four
lizards before they were released
today:

♂ — 91 mm (S-V)
♀ — 80 " "
♀ — 84 " "
♀ — 97 " "

Mayhew
1963

Dipsosaurus dorsalis

27.

July 30

UCR, Riverside Co., Calif.

Today Ron Needham told me he captured 6 adults at Dale Dry Lake, San Bernardino Co., Calif. on 20 July. All of them were gravid females. The two he kept have laid eggs already since being in captivity. He saw only one additional Dipsosaurus while he was there.

1964

April 12

Glamis area, Imperial Co., Calif.

Several lizards caught by the field zoology class this week-end were dead when we reached UCR. The Dipsosaurus in this condition were as follows:

♂ 73 mm S-V length
♀ 85 " " "
♀ 82 " " "

April 13

The live, young lizards were measured today, as follows:

♀ - 81 mm.	♀ - 98 mm.
♀ - 92 "	♂ - 97 "
♀ - 83 "	♂ - 79 "
(ad) ♂ - 123 "	♂ - 70 "
♂ - 95 "	♀ - 72 "
♂ - 112 "	

John Münich brought in 3 additional animals (all ♂♂). Their S-V measurements are:

110 mm

127 mm

127 mm

Mayhew
1967

Dipsosaurus dorsalis

28.

June 7

Palm Springs area, Riverside Co., Calif.

One of the 12 lizards we caught today is in the process of molting. It is an adult male that measures 123 mm (S-V).

Aug. 15

Temperatures were measured today on several lizards that Jehudah Werner + I captured:

<u>Temp.(°C)</u>	<u>Chase(ft.)</u>	<u>Time</u>	<u>Sex</u>	<u>Age</u>
43.6	0	1010	♂	im.
41.5	0	1010	♂	im.
43.0	0	1015	♂	im.
45.0	2	1025	♀	im.
41.8	0	1030	♀	im.
43.0	6	1040	♂	ad?
43.4	2	1045		juv.
42.0	0	1045		juv.
41.0	0	1050	♂	im.
42.0	3	1055		juv.
42.5	0	1100	♀	im.
41.4	3	1110	♀	im.
41.2	0	1120	♂	ad.
36.0	0	0735	♂	ad.
42.6	0	1000	♀	ad?
41.0	6	1000	♂	im.
39.8	8	1005	♀	im.
40.8	10	1010	♂	ad.
42.8	20	1010	♂	im.
41.5	30	1015	♂	ad.
40.2	6	1030		juv.
42.0	8	1035	♂	ad.

Aug. 17



Mayhew
1967

Dipsosaurus dorsalis

29.

Aug. 17

Palm Springs, Riverside Co., Calif.

<u>Temp. (°C)</u>	<u>Chase (ft.)</u>	<u>Time</u>	<u>Sex</u>	<u>Age</u>
40.6	10	1040	♂	im.
40.0	6	1045	♀	im.
43.0	3	1045		juv.

1969

Jan. 10

UCR, Riverside Co., Calif.

John Kitasako, a graduate student in this department, told me today that an adult ♂ he caught while in my field zoology class in the spring of 1963 is still alive.

He also told me about a rather strange behavioral response exhibited by the 3 ♀♀ he had in captivity. For a few weeks in late spring (he thinks it was in May), these ♀♀ would reflexively (apparently) turn over on their backs if he tapped, or rubbed, or put light pressure on their backs (near the tail). Even when one was running across the floor, trying to escape, if he touched it on the back at that time, it immediately turned over on its back. The animals also seemed to be hyper-active at this time. He thought perhaps it was a mating response, but didn't try to do any experimenting with these lizards.

Eumeces
skiltonianus



Mayhew
1961

Eumeces skiltonianus

1.

Mar. 13

UCR campus, Riverside Co., Calif.

Today one of Gene Roller's lizards laid 7 eggs. These are now being incubated in the Vapor Temp. chamber (90°F., 83% rel. humidity).

They measured as follows:

12.5 mm. X 7.2 mm.

11.4 " X 7.2 "

12.6 " X 6.6 "

12.0 " X 7.1 "

12.5 " X 6.6 "

13.2 " X 6.5 "

12.3 " X 6.0 "

The eggs began incubation in the Vapor Temp at 0915.

Mar. 20

2 of the eggs were quite desiccated today when I added water to the sand on which they are incubating. I opened both of them up. One contained no sign of an embryo, so apparently it was infertile. The other one still showed traces of a blastodisc — blood vessels still were visible. It was one of the 3 eggs that turned slightly reddish after incubation had been going on for about 24 hours. One of the reddish eggs is becoming slightly collapsed on one side now. The 2 remaining white eggs are ~~not~~ not showing signs of desiccation yet. These eggs do not show signs of embryos from the outside. The soil is being sprinkled with water each day.

Mayhew
1961

Eumeces skiltonianus

2.

Mar. 22

UCR campus, Riverside Co., Calif.

All the eggs were desiccated today. We opened them & found the 3 reddish ones all had embryos that were beginning to show the heads forming. The 2 white eggs showed no signs of an embryo. Thus, 4 eggs had embryos, 3 showed no signs of embryos. I think the reason all the eggs died was the fact that we have been dissecting lizards in the lab., so formaline fumes are floating around. This seems the most logical explanation.



*Gerrophotonus
multicarinatus*

*Gerrhonotus
multicarinatus*

Mayhew
1959

Gerrhonotus multicarinatus

1.

June 15

UCR campus, Riverside Co., Calif.

Harley K. Nicholas from Plant Pathology (CES) has a ♀ about 10" long (s-v) which laid 2 eggs the size of jelly beans on June 14 on the surface at the edge of a drinking dish where it was moist. She ate moths readily until June 8, and hasn't eaten since. Since laying the eggs she has been very thirsty and laps water off the rocks in the cage when they are sprayed. She never drinks from the dish placed in the cage for that purpose.

July 6

By 1500 today Ray Perez had gathered 19 eggs that had been laid by a ♀ captured last week near Webber Hall. She is 138 mm. long (snout-vent). The eggs are about 16 mm. x 10 mm. One of the eggs was shriveled when found. Ray is putting the eggs under damp sand in a closed terrarium with Gloxinia growing in it. (20th egg laid later.)

Aug. 22

The first eggs of those set July 6 hatched today.

Aug. 24

By today 7 of the 20 eggs had hatched, 2 nearly hatched (died before complete emergence), and 2 appeared to be ready to hatch but never did (dead inside shell, but appeared to be fully developed). The rest of the eggs deteriorated during incubation.

C

C

C

Mayhew
1961

Gerrhonotus multicarinatus

2.

Feb. 26

Riverside, Riverside Co., Calif.

Two juvenel animals were seen on the south side of our house when I was removing old plant material from the flower bed. Both were found in rather dense vegetation.

1962

Nov. 12

Ken Evans recently obtained a juvenile that measured 39 mm. snout-vent length.

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Gopherus
agassizi

Gopherus
agassizi

Mayhew
1958

Gopherus agassizi

1.

May 16

6 mi. S. Barstow, San Bernardino Co., Calif.

We camped 6.1 miles south of Barstow where a dirt road (Stoddard Well Road) left the pavement of the Barstow - Lucerne Valley Road. Four tortoises were taken from UCR and released near our camp, after having been marked. They were released about 45 feet east of a U.S. Geological Survey bench mark (73LC, 1952, 2601 feet above sea level). Another tortoise was caught at camp & released with these four. They were released at 8 PM (PDST). All but the smallest one (#3) were still at the release point when checked for the last time at 1:45 A.M. 5/17/58.

May 17

Three other tortoises were marked & released at the camp-site (1.2 miles from the pavement on Stoddard Well Road). We looked for the other marked tortoises this morning, but were able to find only one (#4). It was approximately 1/4 mile S.E. of the release point at 11:30 A.M. (PDST). Two sidewinders were found in tortoise burrows this morning.

Oct. 25

Stoddard Valley, San Bernardino Co., Calif.

#3 was seen by Jean Goulson today 200-300 yards from its release point.

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(

(

Mayhew
1958

Gopherus agassizi

2.

Oct. 25

Stoddard Valley, San Bernardino Co., Calif.

at the time she saw the animal, it was in the act of digging a burrow.

1959

May 15

Stoddard Valley, San Bernardino Co., Calif.

This afternoon at 1730 we released 7 tortoises, that had been in captivity near U.S. Geological Survey bench mark 73LC, 1952, 2601 feet above sea level. They were lined up in a row when released. One of them immediately began walking away in a south-easterly direction. Several of the others remained stationary for several minutes. Then they began to feed upon plant material near-by or to walk away from the area. Two of the large ones faced each other & began to bob their heads up & down at each other. Some of the time one would bob, whereas at other times both would bob at the same time. This proceeded for about 5 minutes, when one of them suddenly lunged at the other and tried to turn him over by getting the anterior portion of his plastron beneath the shell of the second tortoise. Several attempts were made to upset the second tortoise, but the ~~first~~ one was second



Mayhew
1959

Gopherus agassizi

3.

May 15 Stoddard Valley, San Bernardino Co., Calif.
able to prevent this each time.
After about 5 minutes, the second
tortoise turned its back on the first
one and walked away. We left the
area a few minutes later.

May 16 This morning I found one of the
tortoises we marked last year (#6, ♂)
at the entrance to the rocky burrow
where we had found him last year.
When I returned to the same area
about 1420, it could be seen about
2 feet from the entrance, down in
the burrow. A ♀ was found near
the campsite about 1030, which was
marked (#13) and released at the campsite.

We returned to the area of release
of the 7 tortoises to see if we could
find any of them (at 1430). We found
#12 and #14, each about 50 feet
south-east of yesterday's release point.
Each of them were about $\frac{1}{2}$ hidden in
a burrow each had started. They were
digging near the base of creosote
bushes. We walked about $\frac{1}{4}$ mile S.E.
of the release point without seeing
any other marked tortoises. Two
unmarked animals were detected but
not marked. One escaped further
down its burrow, the other was
brought back for a 2nd grade teacher (young one).



Mayhew
1960

Gopherus agassizi

4.

Mar. 20

5 mi. N. of Ivanpah, San Bernardino Co., Calif.

An adult ♂ was standing at the edge of the pavement on the road leading from Ivanpah to U.S. Highway 91. It was rather undisturbed by our presence.

May 21

8 mi. S. of Barstow, San Bernardino Co., Calif.

While watching an adult near its burrow this morning, one of the students saw the tortoise eat dried stalks of Erodium cicutarium. It ate a great number of these plants with apparent relish.

Nov. 12

Riverside, Riverside Co., Calif.

Today I fixed a tub in the garage for Laurie's tortoise and Dipsosaurus dorsalis to use for hibernation. Each of them was measured before it was placed in the tub.

Gopherus measured 119 mm. from the notch at the anterior end of the plastron to the notch at the posterior end.

1961

May 7

Stoddard Valley, San Bernardino Co., Calif.

An adult ♂, 276 mm. (notch to notch on plastron), was removed from its burrow about 1/2 way up the hillside S.W. from the camp-site & marked #31.

